



Pure National Security Strategy

by

Martin Anderberg, Lieutenant Colonel, Swedish Air Force

A thesis submitted to the faculty of the School of Advanced Air and
Space Studies for completion of graduation requirements for

School of Advanced Air and Space Studies

Maxwell Air Force Base, Alabama

June 2011

DISCLAIMER

The conclusions and opinions expressed in this document are those of the author. They do not reflect the official position of the US or Swedish governments, Departments of Defense, Air Forces, or Air University.

ABOUT THE AUTHOR

LtCol Martin Anderberg is a Swedish Air Force intelligence officer. Commissioned in 1995, LtCol Anderberg served at an Air Defense Fighter Squadron based at Ängelholm. His assignment included training Austrian pilots converting to the J35 Draken. In 2000, he was a research fellow at the Australian Air Force Air Power Study Center in Canberra, in order to prepare for the development of the first Swedish Air Force Air Power Doctrine. In 2001 and 2002 LtCol Anderberg participated in the development of that doctrine. Between 2000 and 2003, he served at the Swedish Air Force Air Tactical Staff in A2 and A5 positions. Between 2004 and 2006, he served in a study tasked with identifying future requirements for the Swedish Air Force. His latest assignment was serving as head of the long-term requirements section in the Swedish Air Staff. LtCol Anderberg is a graduate of the Air Command and Staff College. He is married and has one daughter and one son.

ACKNOWLEDGEMENTS

My gratitude goes to the faculty and staff at SAASS in general and to Dr. Kevin Holzimmer, Dr. Stephen Wright and Dr. John Sheldon in particular. They have all served as a great inspiration and they gently jostled me along the way.

I also want to express my gratitude to the Chief of the Swedish Air Staff, Major General Anders Silwer who was willing to take a chance and have me attend SAASS as the first Swedish officer. I also must thank my wife and my children for putting up with a husband and father who was mentally absent most of the SAASS year.

Finally, I want to acknowledge Dr. Ackerman at ACSC for helping me shape my initial thoughts, and extend my gratitude to several senior Swedish military officers who challenged my conventional ways of thinking, to the members of the Swedish Royal War Science Academy who always stimulate strategic debates, and to the Swedish National Defense College for their fine education.

ABSTRACT

This study comprises a theoretical framework that is conducive to development and application of successful national security strategy. A national security strategy is the instrument which enables societies to partly influence and shape the conditions of the future in which they and their children will live. The national security strategy encompasses definitional underpinnings, characterization of strategy across levels of analysis, incorporating global trends, and understanding the basic goals of the state (security, prosperity and way of life) as all these factors span time from past, present, to future. Overall, the thesis reaches four major conclusions that have implications for national security strategy. First, national security strategy has no end but attempts to attain a continuing advantage across history. Second, strategy manages current and future change, which requires anticipation. Global trends fill this function. Third, national core values have great impact on national security strategy, both as boundaries for applied strategy and as historical enablers. Four, the strategy framework empowers national security with proactive potentials to reinforce opportunities and oppose and change threats before they come to full fruition.

CONTENTS

<i>Chapter</i>	<i>Page</i>
DISCLAIMER	II
ABOUT THE AUTHOR	III
ACKNOWLEDGEMENTS.....	IV
ABSTRACT.....	V
CONTENTS.....	VI
INTRODUCTION	1
1 GRAND STRATEGY	8
2 NATIONAL SECURITY STRATEGY.....	35
3 UNDERSTANDING GLOBAL TRENDS - NAVIGATING THE COMPLEXITY.....	68
4 STATE GOALS, CORE VALUES AND NATIONAL INTEREST	91
5 A CONCEPTUAL FRAMEWORK FOR NATIONAL SECURITY STRATEGY.....	144
CONCLUSION.....	173
BIBLIOGRAPHY	182

ILLUSTRATIONS

<i>Figure</i>	<i>Page</i>
FIGURE 1. GLOBAL TRENDS, DRIVERS AND EFFECTS.....	74
FIGURE 2. STATE GOALS, CORE VALUES AND NATIONAL INTEREST	92
FIGURE 3: GLOBAL TRENDS WITH DRIVERS AND EFFECTS.....	150
FIGURE 4. NEGATIVE FEEDBACK LOOPS.	153
FIGURE 5. POSITIVE FEEDBACK LOOPS.....	154
FIGURE 6. NATIONAL SECURITY STRATEGY IN OPERATION.	158
FIGURE 7. TOWS STRATEGIC ALTERNATIVES MATRIX.	166
FIGURE 8: THE RELATIONSHIP BETWEEN APPLIED GRAND STRATEGY, NATIONAL INTEREST, AND STATE GOALS AND NATIONAL CORE VALUES.....	167

INTRODUCTION

A national security strategy enables societies to partly shape the conditions of the future in which they and their children will live in. It is the purpose of this thesis to demonstrate a theoretical framework that is conducive to the development and application of successful national security strategy.

The study has four sets of premises concerning national security strategy. First, national security strategy is less interested in victory in each particular situation than it is with attaining a continuing advantage over time. Second, external and external variables are equally relevant to national security strategy. Third, national security strategy should be proactive and recognize opportunities as well as threats. Finally, four, it should reinforce or counter the drivers behind global trends, and mitigate or adapt to the effects produced by the trends. However, an examination of existing, classic literature on strategy identified two omissions.

The first omission concerns the concept of strategy itself. The majority of the classic and modern writings on strategy are almost exclusively focused on military strategy. Strategy abandons policy and leaves it policy to coordinate and integrate all instruments of national power. It is a condition not satisfactory for a national security strategy. Thoughts of national security strategy must be scoped in wider terms than the military instrument of power and incorporate all instruments of power. In many ways, the fact that a conflict transforms into the military domain is largely a symptom of a failed national security strategy.

The second omission concerning strategic thought is its almost exclusive focus on threats. An exclusive focus on threats renders the strategy reactive rather than proactive, and this is not a satisfactory ambition for a national security strategy. A national security strategy that only considers threats is profoundly incomplete. The present paper sets out

to remedy these two deficiencies. The subject is important, as nothing less than the future is at stake.

However, strategy is not easy to get right. One of the most important elements of strategy is how a society defines success. If a society is preoccupied with absolute victory in each particular confrontation, they risk raising the stakes, attaching too much prestige to it, conflating problems out of proportions. They risk losing sight of their ultimate goals.

This study concludes that success for a national security strategy is a matter of obtaining continuous, long-run national advantage. This definition of success connects the present to the past and the future and recognizes that current events occur within a stream of history.¹

Success and failure are measured in relative terms and in relative gains. The proper yardstick by which to measure strategy is if the state has achieved a better state of peace compared to the situation previous to the application of strategy. This understanding of success forms the core of the definition of national security strategy presented by the thesis.

A second important element in national security strategy is anticipating future changes in time to permit gradual strategic adaptation and innovation. Harnessing national resources and adapting the state so that it is prepared for coming changes requires time. Sudden, pervasive societal changes are disruptive and should be avoided, which leads into the second factor affecting the probability of success.

A long-view of the future requires mechanisms capable of accurately anticipating distant but coming changes. Global trends, their drivers and their anticipated effects are such a mechanism and they are capable of guiding national strategic conceptualization of the future. Global trends are the manifestation of multiple drivers interacting with the environment and as such, the global trends constitute patterns of change to the international system. The advantage of using global trends as indicators of future change

¹ Yarger, Harry R. *Strategy and the National Security Professional: Strategic Thinking and Strategy Formulation in the 21st Century*, 13.

is that they are objective and do not require multiple assumptions about actions and reactions of other states.

The third element necessary for strategic success is a clear sense of purpose and goal. If the global trends represent the map to the future, state goals indicate the destination while national core values provide boundaries, norms and rules converging to make up the moral compass. The strategy must be in concert with the goals of the state it serves and its national core values, which developed over centuries and change very slowly. The state goals and national core values are the variables that connect current strategy with the stream of history.

A strategy that deviates from the values and norms of its society will only survive for a short time. The wider the deviation, the shorter it will live. At the core, the relationship between strategy and values and norms demonstrates that the state must be in sync with its society. Applied grand strategy, directed by national interest, must be congruent with the state goals and the national security strategy.

The fourth element important to strategic success is proaction rather than reaction. A state content to let other states and forces of nature shape its future can focus exclusively on threats. In contrast, a state wishing to master its own destiny must direct precisely as much energy to opportunities presented by the global trends as to threats. Threats are clearly important, but they do foster a mindset of reaction rather than proaction.

Furthermore, strategy formulation takes place in a volatile and chaoplexic environment, which requires constant learning and adaptation, and a framework capable of encompassing all the elements. The theoretical framework presents an integrative process where the map and the compass provide reference points, and where energy is inserted into the system to reinforce desirable drivers, to change drivers causing undesirable effects, support effects that present opportunities and mitigate undesired effects. The framework is well-suited to chaoplexity and it provides adequate guidance for national security strategy as well as for applied grand strategy, while retaining enough flexibility to permit desired and necessary political freedom of action.

Chapter 1 investigates previous works on the concepts of strategy and grand strategy. The purpose of the first chapter is to demonstrate the omissions of some of the classical and modern definitions of strategy with regards to grand strategy. However, even though most existing, classic definitions of strategy are incomplete, they contain important intellectual seeds which help construct a definition of grand strategy.

Chapter 1 presents a review of the existing conceptualization of strategy, which lays the foundation for the development of a synthetic and more appropriate definition of strategy for the purpose of grand strategy. The survey spans from classical Thucydides, Machiavelli, von Clausewitz, and Jomini to more contemporary works of Delbruck, Fuller, Liddell Hart, Aaron, Wylie, Gray and Dolman.

Chapter 2 develops a definition of grand strategy. It builds on Chapter 1 and the different elements of strategy extracted from classical and modern analysts of the subject identified in that first chapter. It attempts to give a pertinent meaning to what grand strategy is, the context within which it operates and the purpose of it.

Chapter 2 begins with a definition of grand strategy and national security strategy and a clarification of the similarities and differences among the two. The two types of strategies are obviously closely linked but the concepts are divided in their purpose and character.

The second section of Chapter 2 explains the concept of marshaling context in support of strategy and defines the meaning of context. The third section of Chapter 2 investigates the environment of strategy. It explores how the international system works from different perspectives and how complex relationships in an essentially open-ended system complicate grand strategy. The fourth and final section discusses how strategy can marshal context to obtain continuous national advantage.

Chapter 3 explores the concept of global trends and how it can be used to guide national security strategy. The major global trends of the future are climate change, globalization, energy transformation and global demographic change. The trends are thought of as manifestations of patterns of change, including drivers as well as resulting effects. Chapter 3 observes that change characterizes the foreseeable future more than

continuity. Some of the changes have negative effects on certain societies and the responses of those societies can lead to extensive conflict.

History has shown that actions need to be timely as well as relevant to the situation at hand. Thus, it is important for all states to have adequate and relevant insight into the future.

Chapter 4 begins with an exploration of three common state goals. These are security, prosperity and way of life.² The two first national goals, security and prosperity, are basic needs of all societies, and generally must be fulfilled to an adequate degree before a society is ready to assume other goals.

The second section of Chapter 4 discusses the concept of core values and how it influences national security strategy. The third goal, preserving or developing a desired way of life is highly contingent on the national core values. The core values constitute some of the boundaries of strategy, in that they inform customs, norms and rules for acceptable behavior. In addition, Chapter 4 contains a discussion of whether a state wants to maintain the international systems the way it currently is, or if the state wants to challenge and change the function of the existing system or perhaps change it entirely.

Chapter 4 analyses the national compass, pointing out the true north for states, enabling the creation and sustainment of a national consensus of what role that state plays in the world and why. The strategic objectives answer the fundamental question of what the state tries to obtain with its strategy. The foundation for a national security strategy must be that particular state's goals. State goals set the objectives and describe the desired future, which in turn determines the ways and means of the strategy. National interests should originate from the state goals and be in line with the national core values of its society. While state goals and national core values are continuous and extend across centuries if not millennia's, national interests are their manifestation in every unique situation.

² George, Alexander and Robert Keohane. "The Concept of National Interests: Uses and Limitation" in George, Alexander, *Presidential Decisionmaking Foreign Policy*, 217-238.

Finally, Chapter 5 builds a strategy framework discussing its mechanisms, including driving factors, global trends, and the effects produced followed by the introduction of a means to evaluate the model's application. The section about the mechanics of the framework concluded with a prescription of how national security strategy should reinforce or counter the drivers, and mitigate or adapt to the effects produced by the trends.

The second section of Chapter 5 applies a model developed for business assessment, the Strengths-Weaknesses-Opportunities-Threats (SWOT) model and demonstrates how a state can evaluate the effects that the trends will have in the future. The assessment has both relative and absolute components and determines the position a particular state will have on the effects produced by the trends. The section about the assessment process closed with a discussion about how long-term national security strategy supports grand strategy developed and applied to a specific situation.

In summary, this study argues that strategy at the grand strategic level requires more scientific attention than it has previously received. Furthermore, strategy at the grand strategic level must anticipate the future in order to be proactive rather than reactive and to identify opportunities as well as threats. The concept of global trends gives adequately solid guidance whilst retaining enough flexibility to permit strategic adaptation. The global trends satisfy the requirement to consider external variables. However, strategy at the grand strategic level must consider internal variables to the same degree as the external.

The internal aspect of strategy encompasses state goals and national core values. State goals obviously set the objectives for national security strategy, while national core values restrict the freedom of action for the strategist. However, the study also demonstrates that national security strategy and applied grand strategy in concert with national core values garners noteworthy support from society. Both the state goals and the national core values are re fairly constant over time.

Finally, the drivers behind the trends gives leverage to a proactive national security strategy because they represent negative or positive feedback loops, wherein the

strategist can inject energy to amplify or dampen change. Each particular state must determine whether the projected effects produced by the global trends are desirable or undesirable and act accordingly to adapt to the changes and amplify or dampen the associated drivers. This is the essence of strategy.

Chapter 1

GRAND STRATEGY

The purpose of Chapter 1 is twofold. First, it demonstrates that to a large degree, classic and modern definitions of strategy discuss strategy only from the point of view of the military instrument of power. Grand strategy must be applicable in both peace and war, for friends as well as foes and for limited and unlimited objectives. For those very reasons, national security strategies cannot be limited to military measures alone. Grand strategy must take a holistic stock of the world and integrate military means with political, economic, and informational means. The role of grand strategy is to harness and coordinate a state's resources for a specific purpose determined by policy.

A popular way of describing national resources in reference to grand strategy is instruments of power. In the US application they are diplomatic, information, military and economic.¹ In essence, this chapter concludes that most classic and modern sources discuss military strategy and not grand strategy. This is a considerable limitation when thinking in terms of grand strategy, because not enough literature provides a grand strategic perspective. In effect, there is a lack of grand strategy theories.

Second, Chapter 1 identifies important elements of military strategy that contribute to a thorough understanding of grand strategy. Most of the classic and modern writers on strategy demonstrate an astute understanding of grand strategy but their conscious focus is on military strategy. Hence, many writings with a narrow focus on military strategy contain very insightful elements, which are highly useful to grand strategy. These elements should not be ignored but merged into a synthetic definition of grand strategy, with the addition of other broader insights.

The structure of Chapter 1 is divided into three sections, with section one being an introduction to the concept of strategy, section two exploring military strategy and

¹ Klein, John J. *Space Warfare Strategy: Principles and Policy*, 5.

section three identifying elements within military strategy that are useful to grand strategy. Section one in this chapter begins with an investigation of where the concept of strategy emanates from and what uses strategy has in the contemporary world. This section is an introduction to the history behind the concept of strategy, in order to shed light on its origins and its ancient significance. The first section also looks into the multiple contemporary meanings and functions of strategy. Its purpose is to demonstrate that the concept of strategy has evolved over time and that it has a much broader utility today than it used to have.

Section two conducts a chronological survey of how many influential writers on strategy have defined it and described it over time. The survey spans from the classics — Niccolo Machiavelli, Antoine-Henri Barone de-Jomini and Carl von Clausewitz,—to more contemporary works of J.F.C. Fuller, Giulio Douhet and strategies on thermo nuclear war. The purpose of section two is to exhibit how military strategy has evolved over time through the work of the writers above. The writers are selected because they have exerted significant influence over the understanding of military strategy over time.

The third and final section of Chapter 1 views the writings on military strategy from a grand strategic perspective. It analysis the writings on military strategy with an eye to extract those elements in military strategy that are useful to grand strategy. The third section examines the writings of Sun Tzu, Thucydides, Hans Delbruck, Carl von Clausewitz, Sir Basil Liddell Hart, Arthur W. Tedder, J.C. Wylie, André Beaufre, Raymond Aaron, Fred C. Iklé, Mark Clodfelter, Edward N. Luttwak, Lawrence Freedman, Dennis M. Drew and Donald M. Snow, Everett C. Dolman, and Stephen P Randolph. The examination of their writings is selective and concerns only those parts that are relevant to the building of a definition of grand strategy.

The relevance of the elements identified in section three is determined from the point of how well they consider the wider picture in terms of grand strategy. Grand strategy is defined in Chapter 2 and it becomes clear that grand strategy takes a holistic outlook and spans over all instruments of power; it ties into overarching state goals as opposite to consideration of military objectives only. These are the types of elements in military strategy that are applicable to grand strategy that the third section examines.

Many classic and modern writings on military strategy embody many centuries of intellectual thought on strategy and how it relates to the state and the society. The contribution of these elements to grand strategy is much too important to ignore. The following chapter, Chapter 2, will synthesize the elements identified in this chapter, and merge them with additional insights in order to construct a definition of grand strategy.

Chapter 1 first forms the basis for the rest of the thesis in that it introduces the concept of strategy, second, demonstrates the limitation of mainly considering strategy in relation to the military instrument of power, and third, identifies insightful elements of military strategy that are integral to grand strategy.

THE CONCEPT OF STRATEGY

This first section of Chapter 1 conducts a brief introduction to the concept of strategy. It begins by tracing the origins of strategy to its ancient roots and continues with examples of its widespread use today. The meaning and use of strategy have clearly widened significantly over time. Section one links history to the present in terms of strategy and its role in society. The background in section one provides a contrast from which we can delineate the relationship between military strategy and grand strategy. As section one illustrates, strategy is a concept with many facets.

Strategy is an ambiguous concept with different meanings to different writers, commentators, practitioners and users. It is probably presumptuous to think that there is one accurate definition of strategy that can encompass all of its possible aspects and at the same time possess enough precision to actually be useful. A survey of classical and modern definitions of strategy illustrates this point and, moreover, reveals how inappropriate most existing definitions are for study and employment of grand strategy.

The modern origins of the word strategy came from the French *stratagème* (originally denoting a military ploy) in the 15th Century. The concept came via Latin from Greek: *stratēgēma*, from *stratēgein* which means to 'be a general' and from *stratēgos*,

which originates from stratos 'army' + agein 'to lead'.² Thus, the origins of the word strategy have a clear military meaning attached to it. Over time, this has changed and the notion of strategy is presently widely used in different domains of society. It is commonly used for statecraft, in an economic context, in sports, for personal development and as a general framework of thinking.

The meaning of strategy has expanded over time. American strategist Henry R. Yarger explains grand strategy as: “An overarching strategy summarizing the national vision for developing, applying and coordinating all the instruments of national power in order to accomplish grand strategic objectives of: preserve national security; bolster national economic prosperity; and promote national values.”³ Yarger’s view on strategy is thus partly decoupled from the military instrument of power.

German historian and political scientist, Beatrice Heuser, maps the evolution of strategic thought from its ancient origins to its contemporary forms. Heauser concludes that the meaning of strategy has migrated over time. Strategy used to contain a military element only, but after WWI the concept drifted closer to policy.⁴

In the commercial world, corporations develop business strategies for endeavors spanning from marketing to management.⁵ American Sentinel University has a specific journal devoted to business strategy, the *Journal of Business Strategy*.⁶ In this sense, it is perhaps best described as an abstract plan that ties available production means to desired commercial ends. Business strategy has become an important product to acquire and maintain an edge in a highly competitive environment. The basic purpose of the military strategy and the business strategy and the character of the context they operate within, are similar. This is likely the reason that strategy holds relevance to economic enterprises.

² Oxford Dictionaries: http://oxforddictionaries.com/view/entry/m_en_us1294840#DWS-M_EN_US-195283.

³ Yarger, Henry R. *Strategy and the National Security Professional: Strategic Thinking and Strategy Formulation in the 21st Century*, 21.

⁴ Heuser, Beatrice. *The Evolution of Strategy: Thinking War from Antiquity to the Present*, 8-9.

⁵ Harvard Business School Executive Education: <http://search.hbs.edu:8765/exed/?sub=exed&qt=strategy>.

⁶ <http://jobs.americansentinel.edu/>

In sports, a coach is often asked what strategy he will use to defeat the opposing team in the coming match or for recruiting good players next season.⁷ On the web site www.besthockeydrills.com the following quote can be found “One of the most important aspects of the sport of hockey is strategy. The offensive and defensive players must unite to score goals and keep the others from doing the same. **Hockey strategies and plays** vary from the simple, standard formations to complicated one-of-a-kind maneuvers that are sure to keep the other team guessing”.⁸ It is yet again an example of where strategy holds meaning because of the competitive environment in sports and because the players (means) can be clearly linked to goal of winning matches and tournaments.

Furthermore, strategy is also an important concept in personal development and career coaching.⁹ Jay McGraw, son of the famous personal coach Philip C. McGraw, widely known from the television show *Dr. Phil*, wrote a book together with his father titled, *Life Strategies for Teens*.¹⁰ Philip McGraw published his own book on personal strategies, *Life Strategies: Doing What Works, Doing What Matters*, that same year.¹¹ In this case, the strategy is intended to lead to a less clearly defined goal, that of personal success.

Winning battles and wars, and matches and tournaments are competitions with clear-cut outcomes and objective goals while personal success has to be defined by each person and it may only hold meaning to them personally. What constitutes competition is also less clear, as are the resources. The resources are in this case personal abilities and traits of character that are amplified or dampened in a systematic fashion to facilitate personal success.

Finally, strategy has also come to mean a general cognitive construct, a framework that guides decision making in the matching of available means to desired ends. American strategist Everett C. Dolman conceptualizes strategy as a mental process

⁷ Wikipedia: http://en.wikipedia.org/wiki/Ice_hockey.

⁸ <http://www.besthockeydrills.com/hockey-plays/hockey-strategies-and-plays.html>. Bold text in original.

⁹ IMD Business School. <http://www.imd.org/research/challenges/TC078-08.cfm>.

¹⁰ McGraw, Jay and Philip C. McGraw. *Life Strategies for Teens*.

¹¹ McGraw, Philip C. *Life Strategies: Doing What Works, Doing What Matters*.

that lays out coordinated actions undertaken with a specific purpose in mind.¹² In Dolman's view, strategy is applicable over the vast range of domains exemplified by individual improvement, sports, business and statecraft.

Furthermore, according to Dolman, the cognitive process is also about weighing the relative merit of two or more strategies in comparison to each other.¹³ In this sense, strategy involves a creative dimension as well as an evaluating dimension, and evaluation concerns both the environment enclosing the challenge as well as differentiating the relative merits among different strategies. Dolman's insights into the basic principles of strategy provide an understanding of its utility as an instrument to organize rational actions. In essence, strategic thinking pre-supposes rational actors, because the intent is to construct and guide such behavior.

This section illustrated the origins of strategy and how the concept of strategy has evolved and widened over time. Strategy is presently widely used in different domains of society. It is commonly used for statecraft, in business, sports, personal development and as a general framework for rational thinking. The next section looks specifically into military strategy, because this is the domain where strategy has evolved from. However, within the military and among militarily and strategically focused historians, one finds different understandings and definitions of strategy.

STRATEGY MOSTLY EQUALS MILITARY STRATEGY

This second section of Chapter 1 conducts a chronological survey of how many influential writers on strategy have defined it and described it over time. The survey spans from the classics — Niccolo Machiavelli, Antoine-Henri Barone de-Jomini and Carl von Clausewitz,—to more contemporary works of, J.F.C. Fuller, Sir Basil Liddell Hart, J. C. Wylie, Bernard Brodie, Henry Kissinger, Colin Gray, and Everett C. Dolman. These writers have largely focused on military strategy, which in turn has set the tone for strategic thought in general.

¹² Dolman, Everett Carl. *Pure Strategy: Power and Principle in the Space and Information Age*, 12.

¹³ Dolman, Everett Carl. *Pure Strategy: Power and Principle in the Space and Information Age*, 11.

The purpose of section two is to exhibit how military strategy has evolved over time through the work of the writers above. The writers are selected because they have exerted significant influence over the understanding of military strategy over time. The survey begins chronologically with Machiavelli.

Niccolo Machiavelli lived through a turbulent period in Italian politics, one where changes in society and military affairs were significant. Machiavelli experienced these changes first hand through his political services in Florence at the beginning of the 16th Century. His observations of Italian city state politics are made from a distance, after Machiavelli was removed from office due to changes in the administration. In his contemplations of Italian politics, he surmised that military organization was the driving force behind necessary social changes.

Because of this particular historical context, Machiavelli recognized the importance of the military instrument of power. Felix Gilbert writes in *Makers of Modern Strategy: From Machiavelli to the Nuclear Age*, “[Machiavelli’s] view of the military problems of his time patterned his entire political outlook”.¹⁴ In one of his political memorandums, Machiavelli observes that a state can only attain its goals through negotiations and agreements or with military force.

His conclusion of the prospect of negotiations and agreements was very dim. In Machiavelli’s view, negotiations and agreements would never come to proper fruition. Successful politics rested on the ability to coerce the enemy, which in turn meant that military force was the only reliable instrument of power available.¹⁵ In a context largely defined by war, states use the military instrument of power is predominantly for the maintenance of security. The basic conditions of the time are clearly reflected in Machiavelli’s writings. However, Machiavelli was not unique in confronting a violent and confusing context.

The Swiss general, Antoine-Henri Baron de-Jomini, wrote extensively to explain the genius of Napoleon. French nationalism brought about a change in the character of

¹⁴ Paret, Peter ed. *Makers of Modern Strategy: From Machiavelli to the Nuclear Age*, 11.

¹⁵ Paret, Peter ed. *Makers of Modern Strategy: From Machiavelli to the Nuclear Age*, 20.

war during Jomini's time. Napoleon was able to recruit extensive armies because the idea of nationalism permitted the introduction of conscription on a large scale. He made extensive use of his new resources but perhaps most importantly, he found ways around many of the constraints facing him and his contemporaries.

Perhaps the most significant innovation made by Napoleon was to organize his forces into independent Corpses that he could maneuver independently for strategic envelopment and operational hammer and anvil approach.¹⁶ Jomini was deeply affected by war and revolution, which were closely connected in the great upheaval of the end of the 18th Century and the beginning of the 19th.¹⁷

Jomini set out to interpret Napoleon's admitted genius and distill general principle of war from it. Much like J.F.C. Fuller later would do, Jomini tried to make science of the art of war. Jomini presented his thoughts in his book titled, *Summary of the Principle of the Art of War*. In essence, Jomini writes predominately at the operational strategy level of war. His definition of strategy is "the art of bringing the greatest part of the forces of an army upon the important point of the theater of war or of the zone of operations".¹⁸

Just as Machiavelli, Jomini's writings on strategy reflect the dominant circumstances of his time. His main focus is on the military instrument of power, although as the next section demonstrates, he had the ability to widen his scope to a certain degree.

The Prussian military philosopher Carl von Clausewitz was also deeply affected by the Napoleonic style of war. However, von Clausewitz perspective was opposite to that of Jomini because he was on the receiving end of Napoleon's strategy and tactics as a soldier in the Prussian Army. von Clausewitz provides a narrow and succinct definition to the concept of strategy, writing "strategy, [is] the use of engagements for the object of war".¹⁹ Although this is a very clear definition of military strategy it does not specifically

¹⁶ van Creveld, Martin. *Command in War*, 58-61.

¹⁷ Paret, Peter ed. *Makers of Modern Strategy: From Machiavelli to the Nuclear Age*, 143.

¹⁸ Jomini, Antoine-Henri. *The Art of War*, 294.

¹⁹ Clausewitz, Carl von. *On War*, 128.

take into account the national effort required to engage in war. This was a conscious neglect on von Clausewitz's part, because he focused his study on the phenomenon of war.

Von Clausewitz is such an influential writer that many of his definitions have come to color the understanding of strategy in wider terms than war. By studying the Napoleonic wars in Europe, Clausewitz was forced to consider the tight relationship between politics and military strategy, since Napoleon embodied the ultimate political and military power in France at that time.

Von Clausewitz did, however, emphasize that “no strategical idea can be considered completely without considering the political goal.”²⁰ In another paragraph von Clausewitz concludes that strategy is “... the art of skillfully exploiting force for a larger purpose.”²¹ From these examples, it is straightforward to deduce that the famous Prussian thinker did consider the wider picture but used the concept of strategy almost exclusively for the military instrument of power, which the following section considers.

To summarize the classical writers on strategy, Machiavelli, Jomini and von Clausewitz were affected by the particular conditions in existence during the times in which they lived. Their view of strategy was ultimately military in character. Although they clearly understood and emphasized that military force is instrumental, the acute and grave military dangers of their time persuaded them to view the object of their studies mainly through a military lens.

The volatile politics in the Italian city states made Machiavelli reflect upon politics and the instrument of war in a new light and the political changes in France and Napoleon's innovative battlefield concept drove von Clausewitz to deeply ponder the mechanisms of war. Furthermore, during this era, the sovereign and the general were often the same person, which presumably made the link between grand strategy and military strategy less clear. Machiavelli, Jomini and von Clausewitz focused

²⁰ Paret, Peter ed. *Makers of Modern Strategy: From Machiavelli to the Nuclear Age*, 352.

²¹ Clausewitz, Carl von. *On War*, 202.

predominantly on military strategy and contributed thus less than they arguably could have to grand strategy.

It was certainly not the last time in history that developments changed the character of war significantly. In the 20th Century, the industrialization of war and the combustion engine fundamentally transformed war itself, and the introduction of nuclear weapons relegated most other domains of society in the looming shadow of the military necessity. These developments highly affected the writings of modern strategists.

British General J.F.C Fuller and strategic commentator B.H Liddell Hart wrote in the aftermath of WWI and in an attempt to come to terms with the epic failures of grand strategy and military strategy during that conflict. They were both mainly concerned with finding new methods in war to avoid the horrible trench line stale mate that developed on the Western front, lasting between 1914 and 1918. Both Fuller and Liddell Hart recruited support from developments in combustion technology that enabled mobile and mechanized warfare.

Fuller's grand idea was to maneuver mobile forces at such a speed as to enable them to paralyze the enemy's command and control functions.²² The objective was to move so swift that the enemy's command and control was forced to accept a de facto occupation of their grounds.²³ This condition disrupts the enemy's fighting strength and forces the enemy to act on the attacker's will.

Fuller grasped the new possibilities that the combustion engine provided and thought in analogies to naval warfare maneuver.²⁴ As a logical extension of Fuller's focus on war, he defined the strategic object of war as "the destruction of the enemy's fighting strength."²⁵ Thus, Fuller does not consider the wider implications of war and military strategy and does not contribute much to an understanding of grand strategy. However, just as with Machiavelli, Jomini and von Clausewitz, the conditions of his time shaped Fuller's outlook on the world.

²² Paret, Peter ed. *Makers of Modern Strategy: From Machiavelli to the Nuclear Age*, 601.

²³ Fuller, J.F.C. "On Future Warfare", 243.

²⁴ Paret, Peter ed. *Makers of Modern Strategy: From Machiavelli to the Nuclear Age*, 602.

²⁵ Fuller, J.F.C. "On Future Warfare", 242.

Italian general Giulio Douhet viewed the strategic failures of WWI from a different perspective. In his estimate, the combustion engine enabled maneuver warfare through the air. The airplane provided the best opportunity to avoid tragic stale mates in war and the inevitable attrition that followed. Vertical envelopment was Douhet's solution for the future.

He believed that air forces should conquer the command of the air and compel the enemy to give up by systematically attacking factories and cities, and thus shatter their will to resist.²⁶ Despite Douhet's penetrating analysis of the changing character of war, brought about by technological progress, he reduces strategy to essentially air strategy.²⁷ Douhet connects the air strategy to political considerations but these considerations are clearly not the foci of his thought. Douhet thus joins the previous strategic thinkers in that he provides little in terms of grand strategic insights.

The introduction of thermonuclear weapons brought about the last significant upheaval in military strategy. The thermonuclear threat developed gradually between the United States and the Soviet Union during end of the 1940's up to the 1960's. It stabilized in the later 1960's and was present in its most acute form up to the passing of the Soviet Union in 1991.

Because of the tremendously destructive power resident in each thermonuclear warhead, old theories of strategy seemed incapable of coping with the new instruments of military power. The advent of the thermonuclear weapon was such a substantial step up even compared to nuclear weapons that strategists wrestled hard with its implications to strategy and policy.

Strategy largely developed into theories of deterrence, which predominantly became the domain of civilian scientists and analysts.²⁸ The character of the challenge, and probably also the introduction of military theoretical thinking to civilian scientists, and the particular situation where the thermonuclear adversaries realized that the

²⁶ Douhet, Giulio. *The Commando f the Air*, second page in editor's introduction.

²⁷ Douhet, Giulio. *The Commando f the Air*, 16.

²⁸ Builder, Carl H. *The Icarus Syndrome: The Role of Air Power Theory in the Evolution and Fate of the U.S. Air Force*, 208.

weapons had to deter war without being used, lent itself to the introduction of game theory as part of military strategy. Traditional deterrence built on credibility, which usually meant a demonstrated capacity and willingness to use the military instrument when needed. However, because of the destructiveness of thermonuclear weapons, such demonstration of resolve was unthinkable. Thus, game theory filled a gap in the United States and substituted demonstrated resolve, which deterrence previously depended on. Thus, with game theory, strategy gained a peculiar character, mostly absent from other writings about military strategy.

In conclusion, section two of this chapter has provided influential examples demonstrating how strategy for a particular instrument of power has come to dominate the general concept of strategy, at the expense of grand strategy. A common thread among the examples of military strategy is that the authors wrote in the aftermath of significant alterations of the character of war. At those times, security was perceived as being scarce and a shadow of ever more destructive war was looming large.

Machiavelli wrote when the Italian city states were warring continuously and Jomini and von Clausewitz wrote to come to grips with the Napoleonic wars. Fuller and Douhet are examples of modern thinkers on military strategy that try to understand the future of warfare in industrialized wars, encompassing the combustion engine. Finally, the unacceptability of thermonuclear war and the inability of traditional strategy to apply drove strategic thought to fertile grounds in economically based game theory. However, a pure military outlook on strategy comes at great peril.

Building on an observation originally made by the perceptive German military historian Hans Delbrück about WWI, the American strategist Bernard Brodie determined that in WWI "...the vast advance in the technology of war which distinguishes the twentieth century from the nineteenth has been attended by the suppression of rational concern with the political aims of war. Thus a war that was clearly not being fought for total objectives, such as the political extirpation of the enemy state, was allowed to

become total in its methods and intensity.”²⁹ This clearly articulates the danger inherent in treating strategy only in the military dimension and neglecting the wider context.

British military historian Lawrence Freedman writes in his epic history of the evolution of nuclear strategy that the military instrument of power always must be considered in reference to other instruments of power, to the wider political context and to the political ends the different instruments serve.³⁰ Perhaps the greatest peril brought about by a too heavy focus on military strategy is that leaders neglect the shaping abilities of grand strategy.

The most important function of grand strategy is to obtain and maintain security for the state. It follows that one of the most vital functions of grand strategy is to avoid war, because war reduces security and comes with expansive costs in terms of lives and treasure. With a proper grand strategy, a state can strive to shape the future in such a way as to increase the security of that state without having to go through war. This is of course not always possible. Sometimes wars must be fought to increase security but the probability for security without war increases with a properly devised and executed grand strategy.

As the following section proves, all is not lost. As happens with many theories, the interpretation of strategy varies over time as observers and writers try to grasp the true meaning of strategy for their time. Even militarily focused strategies contain elements useful to grand strategy. These elements are important to identify, because together and with further additions, they contain the seeds for a definition of grand strategy that tie the past firmly to the future. As British strategist Colin Gray concludes, the nature of strategy is permanent while its character changes with variations in context.³¹ This insight is equally useful to different types of strategies. The basic elements of military strategy apply to grand strategy too.

²⁹ Brodie, Bernard. *Strategy in the Missile Age*, 67

³⁰ Freedman, Lawrence. *The Evolution of Nuclear Strategy*, 462.

³¹ Gray, Colin. *The Strategy Bridge: Theory for Practice*, 41-43.

TOWARDS GRAND STRATEGY

This third section of Chapter 1 focuses on analyzing the elements of military strategic writings that are applicable and necessary to the understanding of grand strategy. The criteria determining the selection of what authors and texts occur in this section is the applicability of the ideas to grand strategy. The chosen elements in this section form the basis for the development of the definition of grand strategy. Chapter 2 combines these elements with additional insights to construct a definition of grand strategy.

The structure of the section is centered on four grand strategic themes. The first theme analyzes the essence of strategy, which ties available means to precise ends specified by policy. It recognizes that strategy is in service of policy and it underscores the importance of never regarding military strategy as an end in itself. Grand strategy considers all instruments of power, not only the military.

The second theme considers the dynamic and complex context within which strategy operates. The third theme focuses on elements that describe strategy itself as a system of measures taken to obtain specific goals. Grand strategy does not consider single actions but strings of interconnected actions that tie the past to the future.

The fourth and final theme revolves around the role of strategy, which is to shape the future to conform to the highest degree possible to the goals of the state. Furthermore, the fourth theme identifies elements in strategy that recognizes that the purpose of grand strategy is to place the particular state in a position of continuous advantage. These four elements of strategic truth form the core of the definition of grand strategy, described and elaborated in Chapter 2. A grand strategic definition lacking any of these is woefully incomplete. All the themes are necessary elements of grand strategy.

Most of the influential writers on military strategy recognize the importance of considering military strategy in relation to grand strategy. They acknowledge that military strategy is a sub set of grand strategy and that military strategy should always serve grand strategic purposes. However, few of them write extensively on grand strategy. In quantitative terms, the greatest portion of their writings focuses on military

strategy and not grand strategy. Yet, there is a multitude of profound insights on important elements of grand strategy in their comparatively brief treatment of the subject.

The structure builds on three themes: strategy and policy, strategic context, strategy as a system of measures and strategy as a means to establish and maintain continuous advantage. For the first theme, strategy and policy, Antoine-Henri Barone de-Jomini, Carl von Clausewitz, Arthur W. Tedder, Dennis M. Drew and Donald M. Snow and Mark Clodfelter are the main contributors.

For the second theme on the strategic context, Antoine-Henri Barone de-Jomini, Carl von Clausewitz, André Beaufre and Dennis M. Drew and Donald M. Snow provide important elements. The sole contributor to the third theme, strategy as a system of measures, is J.C. Wylie. The text on the subject of shaping the future and creating a continuous advantage, the fourth theme, comes from Sun Tzu, Thucydides, Carl von Clausewitz, Hans Delbruck, Sir Basil Liddell Hart, Raymond Aaron, Fred C. Iklé, Edward N. Luttwak, Everett C. Dolman and Stephen P. Randolph

The first grand strategic theme to analyze is the relationship between strategy and policy and how grand strategy must be more than the strategy for the military instrument of power. French writer, Antoine-Henri Baron de Jomini, is perhaps best known for his somewhat mechanistic application of military principles at the operational and tactical levels of war.

Yet, he demonstrates a thorough understanding of the importance of context in determining the relationship among the instruments of power. In his deliberations on wars of opinion, he asserts that French operations in Spain in the early 18th Century were more political than military in character.³² Moreover, Jomini discusses political maneuvering in order to avoid two parallel wars and the role of alliances to maintain political and military equilibrium on the European continent.³³

Jomini's grand strategic insights point to the fact that the specific character of war deeply affects the relationship among the instruments of power. In some wars, the

³² Jomini, Antoine-Henri. *The Art of War*, 25.

³³ Jomini, Antoine-Henri. *The Art of War*, 32-33.

military instrument should be the predominant one, while in other wars, the military instrument serves a secondary or tertiary role in support of other instruments of power. When the military instruments perform supporting duties, it can serve to leverage other instruments of power. On the other hand, Jomini's discussion of diplomacy clearly illustrates that other instruments of power can be used to shape the context in order to bring about better conditions, and improve the probability of success for the military instrument. Thus Jomini's contributing element in the first strategic theme is to widen the scope of strategy and to explain the interdependent nature of the different instruments of power even during war.

Jomini's observations in the first grand strategic theme tie well in with an insightful point made by British Air Marshal Arthur W. Tedder. His experiences in WWII taught him to view war from different perspectives. Tedder concludes that war occurs in several parallel dimensions and it leads him to think in terms of three categories of war.

He writes that analytically and for practical purposes, war really occurs as a physical war, a political war, and an economic war.³⁴ All instruments of power have the ability to operate in all three categories of war to a higher or lesser degree. Presumably, each of the sub-categories of war requires its own strategy, because they are all subservient to the political objective.

If strategy in its most generic form is about constructing ways to obtain specific goals with available means, then strategy is necessary for all instruments of power. Just as a prudent, effective and efficient application of the military instrument of power requires a strategy, so does the application of economic, diplomatic and informational instruments of power require individual strategies. Strategy guides the application of all instruments of power and makes sure they are coordinated and aimed at unity of effort. Grand strategy coordinates and integrates the individual strategies to serve policy goals.

Tedder's main contribution to the first grand strategic theme is the need to view war from physical, political and economic perspectives. Each of these sub categories of

³⁴ Tedder, Arthur W. *Air Power in War*, 14.

war requires their own strategy. Furthermore, the approach for each instrument of power must be coordinated by grand strategy, to ensure that goals determined by policy are obtained in a prudent, effective and efficient manner. von Clausewitz and Liddell Hart explain the importance of tying strategy to policy in more depth.

Prussian military philosopher Carl von Clausewitz asserts that war has an instrumental function to policy. War is initiated to obtain political aims.³⁵ “The political object – the original motive for war – will thus determine both the military objective to be reached and the amount of effort it requires.”³⁶ von Clausewitz provides the logical link between war and policy, both in terms of means and ends. The value of military strategy can only be measured in relation to the political goals.

This philosophy of measuring consequences of individual actions performed by different instruments of power is the basis of American military historian Mark Clodfelter’s assessment of the contribution of US airpower during the Vietnam War.³⁷ Clodfelter’s ultimate criterion for measuring success or failure of military strategy is how well it contributes “to achieving the desired political objective.”³⁸ He continues to write that “Grand strategy blends diplomatic, economic, military, and informational instruments in a concerted effort to achieve those aims.”³⁹ The war aims should then lead to the political objective.

A military strategy is not successful if it wins the battles but loses the war because it prevents the effective operation of other, more important instruments of power. The grand strategy acts as a bridge to ensure that the strategies for each particular instrument of power are in concert with the political goals. British military thinker B.H. Liddell Hart concludes that “the role of grand strategy ... is to coordinate and direct all the resources of a nation or band of nations, towards the attainment of the political object of the war – the goal defined by fundamental policy.”⁴⁰

³⁵ Clausewitz, Carl von. *On War*, 80.

³⁶ Clausewitz, Carl von. *On War*, 81.

³⁷ Clodfelter, Mark. *The Limits of Air Power: The American Bombing of North Vietnam*, 215.

³⁸ Clodfelter, Mark. *The Limits of Air Power: The American Bombing of North Vietnam*, 215.

³⁹ Clodfelter, Mark. *The Limits of Air Power: The American Bombing of North Vietnam*, 215-216.

⁴⁰ Liddell Hart, B.H. *Strategy*, 322.

In conclusion, the first theme on grand strategy distilled several useful elements from writings mainly focused on military strategy. Jomini and Tedder describe how the instruments of power exist in an interdependent relationship and that all require their own strategies. Liddell Hart and von Clausewitz clearly delineate between war, military strategy and political ends. They emphasize that the purpose of military strategy is to serve political objectives.

Furthermore, Liddell Hart concludes that in order to permit unity of effort, grand strategy is required to harmonize the individual strategies and ensure that they are prudent, effective, efficient and furthers the political objective. The second grand strategic theme describes the context that surrounds strategy.

The second grand strategic theme discusses the competitive, dynamic and complex context, within which strategy operates. The context of strategy is important to understand because it presents both limits and opportunities to strategists. Both classical and modern works on military strategy provide important insights to the basic characteristics of the context. von Clausewitz, Beaufre and Drew and Snow provide good elements on the basic characteristics of the context.

Carl von Clausewitz emphasized the centrality of two opposing wills, one trying to coerce the other to accept the dictates of the former, as a fundamental part of war.⁴¹ Moreover, French General André Beaufre very explicitly pointed to the dynamic and competitive nature of strategy. He eloquently asserts that strategy “is therefore the art of the dialectic of force, or more precisely, *the art of two opposing wills using force to resolve their dispute*.”⁴² Thus both von Clausewitz and Beaufre reach the conclusion that war is a duel and essentially consist of a cycle of action and reaction. The environment is both competitive and dynamic in its most basic form.

However, both von Clausewitz and Beaufre simplify the environment by reducing it to two opponents. In reality, more actors are involved, directly and indirectly. Alliances serve the purpose of spreading security risks to two or more states, all of which

⁴¹ Clausewitz, Carl von. *On War*, 75.

⁴² Beaufre, Andre. *An Introduction to Strategy*, 22.

would become directly involved in a conflict. Furthermore, third party states are affected by cascading effects emanating from the conflict. Examples of third party states are trading partners and neighboring countries. They all have their interests to pursue and strategies to mitigate or take advantage of the situation as it evolves.

American analysts Dennis M. Drew and Donald M. Snow acknowledge this element of complexity that is missing from von Clausewitz and Beaufre. They deduce that “Grand national strategy is the process by which the country’s basic goals are realized in a world of conflicting goals and values held by other states and non-state actors.”⁴³ They point precisely to one of the most vital aspects of strategy; it occurs in a highly dynamic interplay with other states’ strategies, often designed to obtain different and sometimes opposing policy goals. They also recognize that grand strategy affects non-state actors as well as state actors.

To summarize the elements distilled in grand strategic theme two, von Clausewitz, Beaufre, and Drew and Snow describe the context of grand strategy as being competitive, dynamic and complex. These elements, competitiveness, dynamics and complexity, drawn from classic and modern writers on military strategy provide the point of departure for a deeper discussion of the strategic context in Chapter 2.

The third grand strategic theme is comparatively short and gains its insights from Rear Admiral J.C. Wylie, USN. Wylie’s important contribution is the recognition that strategy itself is a system of measures that ties the past to the future in grand strategy. Wylie’s definition of strategy is “A plan of action designed in order to achieve some end; a purpose together with a system of measures for its accomplishment.”⁴⁴ He emphasizes that the use of strategy is not limited to war or even military application.⁴⁵

In essence, what Wylie tells us is first that a strategy is executed by actions, and second that a strategy cannot consist of a single action. Strategy is a string of interrelated actions that reinforce one another. It implies that the strategist must carefully orchestrate

⁴³ Drew, Dennis M. and Snow, Donald M. *Making Twenty-First Century Strategy: An Introduction to Modern National Security Processes and Problems*, p. 31.

⁴⁴ Wylie, J.C. *Military Strategy: A General Theory of Power Control*, 14.

⁴⁵ Wylie, J.C. *Military Strategy: A General Theory of Power Control*, 14.

the individual actions and consider their mutual impact, in order to conserve resources and ensure ultimate success. Each particular action cannot be viewed in isolation; it is its contribution to the system of measures that counts. This is the important insights to grand strategy that Wylie brings to the third theme.

The fourth grand strategic theme concerns how strategy should shape the future in such a way as to enable the particular state to obtain and maintain a continuous advantage over time. This is an important element because it discloses the core function of grand strategy in relation to policy, which is to shape the future and ensure continuous advantage to the particular state.

An ancient commentator such as Thucydides judges Pericles' merit as a political leader and general on the grounds of grand strategy. He affirms that "For as long as he [Pericles] was at the head of the state during the peace, he pursued a moderate and conservative policy; and in his time Athens's greatness was at its height. When the war broke out, here also he seems to have rightly gauged the power of his country."⁴⁶ In one of Pericles's famous speeches, he recommended that the Athenians gather within the city walls and prepare defenses rather than confronting the Spartan's in a battle.⁴⁷ At one point, Pericles conveys, "Capital, it must be remembered, maintains a war more than force contributions."⁴⁸

Through Pericles, Thucydides demonstrates a clear understanding of the all-important connection between war and peace. He points out that Pericles was aware of the importance of conserving power because he realized that grand strategy is not about winning a particular battle, it is about prevailing in the long run. Strategy at the national level must establish a logical continuum that prevails in peace, conflict, and the peace that follows the conflict. Thucydides demonstrates the relationship between politics and war in his analysis of the Peloponnesian War. Pericles carefully devised a strategy, which focused on maintaining economic strength and maintaining the cohesion of the alliance, and was in concert with the character of the Athenian state and its resources.

⁴⁶ Strassler, Robert B. *Thucydides: A Comprehensive Guide to The Peloponnesian War*, 127.

⁴⁷ Strassler, Robert B. *Thucydides: A Comprehensive Guide to The Peloponnesian War*, 98.

⁴⁸ Strassler, Robert B. *Thucydides: A Comprehensive Guide to The Peloponnesian War*, 81.

However, after Pericles' death, Athens strategy deviates to one which is more dependent on force and that demonstrate less understanding of the long-term effects that the new strategy will have on Athens, Sparta and the Mediterranean system in general. The new strategy places Athens gradually in a position of disadvantage compared to its arch-opponent Sparta. The concepts of a better state of peace and continuous advantage take the analysis to the next step.

Liddell Hart recognizes the fundamental importance of establishing peace as one of the primary duties of grand strategy. He explicitly argues that a grand strategy must look beyond the current conflict to the subsequent peace.⁴⁹ Liddell Hart concludes that the object in war is a better state of peace.⁵⁰ Thus, the aim of the war is to "conduct war with constant regard to the peace you desire".⁵¹ The peace Liddell Hart desires is one which places the particular state at a position of advantage compared to the situation prior to the war.

The improved position is what is important to policy and thus what grand strategy strives for. It is what makes the state go to war in the first place; what makes the state consider it worth the candle. What exactly a better and more advantageous position is must be defined by the particular state and this determination should guide grand strategy. Liddell Hart's great insight is that if the better state of peace is not well thought out and articulated in policy guidance, grand strategy will ultimately fail. Because then, the war risk becoming an end in itself.

This is precisely the important insight that Everett Carl Dolman points out when he asserts that strategy has no end; it is a continuous endeavor for advantage.⁵² Dolman's concept of continuous advantage acknowledges the fact that grand strategy is ultimately concerned with securing the future. It looks beyond individual battles and wars, and takes a longer view than Liddell Hart's better state of peace. Dolman points out that it is not enough to think in terms of the political situation after a war.

⁴⁹ Liddell Hart, B.H. *Strategy*, 322.

⁵⁰ Liddell Hart, B.H. *Strategy*, 338.

⁵¹ Liddell Hart, B.H. *Strategy*, 338.

⁵² Dolman, Everett Carl. *Pure Strategy: Power and Principle in the Space and Information Age*, 11.

Strategy spans across centuries and it is in this perspective the concept of continuous advantage acquires meaning. It is in these terms and in that long view that the merit of grand strategy must be measured. The system of measures that strategy represents must firmly anchor the future to the past in the expansive time line Dolman suggests. Grand strategy is the bridge.

Securing continuous advantage requires an unrelenting focus on long-term goals and a clear separation between the political object and military victory. There is great danger in confusing military strategy with grand strategy. It is of course the purpose of this chapter to carefully separate between military strategy and grand strategy precisely because of this risk. Several of the classic and modern writers on strategy are clearly aware of the risk, because it has occurred several times in history.

Liddell Hart warns explicitly about the danger of losing sight of the political goals once war has been initiated. He writes, “History shows that gaining military victory is not in itself equivalent to gaining the object of policy. But as most of the thinking about war has been done by men of the military profession there has been a very natural tendency to lose sight of the basic national object and identify it with the military aim.”⁵³

Liddell Hart shares this observation of this tendency with von Clausewitz. von Clausewitz is acutely aware of that war may take on a life on its own. He writes “Its grammar indeed may be its own, but not its logic ... the [military] aim takes the place of the [political] object.”⁵⁴ When a state and a nation have invested blood and treasure in war, the passions may overtake prudent judgment in the evaluation of what the war effort actually brings in terms of continuous political advantage. There are several situations in history when military strategy has taken the place of grand strategy.

German military historian Hans Delbrück is a classic writer on strategy who conducted an expansive study of military history. He asserts that Frederick the Great was a great General not because he mastered battles but because he had an astute political awareness and because he made military strategy conform to political reality. Delbrück

⁵³ Liddell Hart, B.H. *Strategy*, 338.

⁵⁴ Clausewitz, Carl von. *On War*, 75 and 605.

was in the unfortunate position to observe the inverse during WWI, when Germany tried to make their military strategic system self-sufficient. Delbrück concluded that attempts to divorce the military strategy from its political context are a menace to the state.⁵⁵

This is precisely the conclusion that French political and social theorist Raymond Aaron points out in his monumental work on peace and war in international relations. He specifically warns of the dangers inherent to a situation where politics collapses under the weight of military strategy. Aaron argues that politicians in WWI relinquished their duty to establish proper political goals for the war. They thereby lost all ability to control the military struggle.⁵⁶

American strategist Fred Charles Iklé makes the same assessment. He writes that both sides in WWI failed to “stop the fighting when it became apparent that the premises on the basis of which the nations had entered hostilities were mistaken.”⁵⁷ Victory through the strategy of annihilation became the ultimate end.⁵⁸ The politicians let the means turn into an end, which lead to a continuation of the carnage on the battle fields of the Flanders. As von Clausewitz warns, they let the aim of the war substitute the political objective.

None of the countries in WWI was in a position of advantage after the war’s end. The economies of most states were in complete ruin and France, Germany and Great Britain had lost nearly a generation of males between the age of 20 and 30. Russia experienced a revolution, the Austro-Hungarian Empire collapsed and the borders of several states were in disarray. None of the states involved obtained their pre-war goals, yet they kept on fighting for several years without a new set of clearly defined goals. WWI truly actualized the worst fears of von Clausewitz, Delbrück, Liddell Hart and Dolman. The opposite is true for the North Vietnamese leadership from their liberation wars against the French and the Americans.

⁵⁵ Paret, Peter ed. *Makers of Modern Strategy: From Machiavelli to the Nuclear Age*, 343-344.

⁵⁶ Aaron, Raymond. *Peace and War: A Theory of International Relations*, 26.

⁵⁷ Iklé, Fred Charles. *Every War Must End*, 8.

⁵⁸ Aaron, Raymond. *Peace and War: A Theory of International Relations*, 26.

The North Vietnamese liberation movement managed to hold the political goal of national liberation in sight from 1945 to 1975 when it was realized. By determination, strategic awareness, and perhaps a bit of luck, they seemed to constantly have military strategy be subservient to grand strategy and policy.

American Colonel (Ret.) Stephen P. Randolph provides an illustration of the North Vietnamese political leadership in 1969. He contends that the North Vietnamese viewed the conflict through two complementary approaches, as a military and political struggle. Randolph maintains that both were philosophically equivalent in the eyes of the North Vietnamese leadership. They did not distinguish between negotiations, insurgent activities, and combat between regular military formations. The merit of actions in one sphere was measured through its effect in other spheres. The North Vietnamese managed to keep a truly integrated perspective on strategy and assessed consequences and actions at the grand strategic level.⁵⁹ The North Vietnamese marshaled their resources and the context to their continuous advantage in the true sense of Liddell Hart and Dolman.

This concludes the fourth and final grand strategic theme. Thucydides, Delbrück, von Clausewitz, Liddell Hart, Aaron, Icklé, Dolman, and Randolph all write in their own ways of the importance of grand strategy, and how it should be used to shape future developments in order to obtain a continuous advantage. Delbrück, Aaron and Icklé provide examples from WWI, ending in disaster because the policy makers lost sight of precisely what a continuous advantage meant to their situation and how they neglected to use grand strategy to shape their participation in the conflict. Randolph on the other hand, identifies a case where the general principle of grand strategic theme four was successfully heeded.

It is striking to see the continuity in the conclusions Thucydides, Delbrück, von Clausewitz, Liddell Hart, Aaron, Icklé, Dolman, and Randolph concerning the fourth grand strategic theme. It serves as a reminder of the timelessness of insightful grand strategic theory.

⁵⁹ Randolph, Stephen P. *Powerful and Brutal Weapons: Nixon, Kissinger and the Easter Offensive*, 23-14.

CONCLUSION

This first section of Chapter 1 introduced the concept of strategy. It began by tracing the origins of strategy to its ancient roots and continued with examples of its wide spread use today. The meaning and use of strategy has clearly widened significantly over time. Section one illustrated that strategy is a concept with many facets.

The second section performed a chronological survey of how many influential writers on strategy have defined it and described it over time. The survey spanned from the classics -- Niccolo Machiavelli, Antoine-Henri Baron de-Jomini and Carl von Clausewitz,—to more contemporary works of, J.F.C. Fuller, Sir Basil Liddell Hart, J. C. Wylie, Bernard, Brodie, Colin Gray, and Everett C. Dolman. These writers have largely focused on military strategy, which in turn has set the tone for strategic thought in general. The writers were selected because they have exerted significant influence over the understanding of military strategy over time.

This third section focused on analyzing the elements of military strategic writings that are applicable and necessary to the understanding of grand strategy. The criteria determining the selection of what authors and texts occurred in this section was the applicability of the ideas to grand strategy. These chosen elements form the basis for the development of the definition of grand strategy.

The structure of the third section centered on four grand strategic themes. The first theme analyzed the essence of strategy, which is tying available means to precise ends specified by policy. It recognized that strategy is in service of policy and it underscored the importance of never regarding military strategy as an end in itself. Grand strategy considers all instruments of power, not only the military.

The second theme considered the dynamic and complex context within which strategy operates. The third theme focused on elements that describe strategy itself as a system of measures taken to obtain specific goals. Grand strategy does not consider single actions but strings of interconnected actions that tie the past to the future.

The fourth and final theme revolved around the role of strategy, which is to shape the future to conform to the highest degree possible to the goals of the state. Furthermore, the fourth theme identified elements in strategy that recognizes that the purpose of grand strategy is to place the particular state in a position of continuous advantage. These four elements of strategic truth form the core of the definition of grand strategy, described and elaborated in Chapter 2. A grand strategic definition lacking any of these is woefully incomplete. All the themes are necessary element of grand strategy.

Chapter 1 pointed to the fact that many classic and modern texts are mostly focused on military strategy as opposed to grand strategy. In times of grave danger, when the threat is predominantly military, there arises a most human tendency among analysts and practitioners to isolate the military means from its political purpose. The strategic debate focuses so much on the military instrument that it creates an exclusive epistemological interpretation and language that diminishes grand strategic thinking. The concept of strategy takes on a grammar wholly consistent by military strategy, to use one of Clausewitz constructs.

The study of the subject of strategy merits the devotion of a great deal of attention and energy, since it deals with one of the most fundamental questions of humanity, which is security. Strategy has become the instrument with which societies avoid, prevent and manages insecurity and the associated threats. Strategy accomplishes for a society's external relations what the legal system does for domestic relations. The military aspect of strategy is one among many. It is an important one because it is destined to confront the gravest dangers facing a society. However, it is only one part of a system of measures undertaken to ensure the security of the state.

Chapter 1 formed the intellectual foundation upon which Chapter 2 builds. It ties past insights and understandings of military strategy and grand strategy to the construct of grand strategy taking place in Chapter 2. Chapter 1 also firmly anchors new ideas on grand strategy in previous strategic traditions.

Chapter 2 takes the study of grand strategy a step further and develops a proper definition of the concept, building on the insightful elements identified in the four

strategic themes in Chapter 1. Furthermore, Chapter 2 deepens the analysis of the context in which strategy functions, and how the purpose of strategy is to marshal the context for continuous advantage in peace and war.

Chapter 2

NATIONAL SECURITY STRATEGY

A national security strategy endeavors to make society secure from external threats. Protecting society from external threats is one of the most fundamental undertakings by society for humankind. It is also the main duty of the state according to British political philosopher John Locke.¹ Rule of law is the domestic equivalent of national security strategy, which has the purpose of maintaining peace and tranquility within a society. National security strategy thus carries great responsibilities.

The need for a national security strategy increases in times of uncertainty and increasing threat. Raymond Aaron writes that “peace is rationally the goal to which societies tend.”² This sounds intuitively correct for most societies, and it has logical cogency too in that peace allows societies to pursue its goals, one of them being security.

Aaron further suggests that peace appears to be “*the more or less lasting suspension of violent models of rivalry between political units...* Peaceful relations occur within the shadow of past battles and in the fear or the expectation of future ones....”³ Aaron’s assertions submit that national security strategies are colored by past experiences unique to each state and that a national security strategy must be capable of anticipating the future more correct than incorrect.

Colin Gray clearly expresses the seriousness of the subject, writing “Poor strategy is expensive, bad strategy can be lethal, while when the stakes include survival, very bad strategy is almost always fatal”, on the first page of his book on modern strategy.⁴ Gray’s observation speaks to the importance of mastering the concept of grand strategy, in peace as well as in war.

¹ Doyle, Michael W. *Ways of War and Peace*, 214.

² Aaron, Raymond. *Peace and War: A Theory of International Relations*, 150.

³ Aaron, Raymond. *Peace and War: A Theory of International Relations*, 151.

⁴ Gray, Colin S. *Modern Strategy*, 1.

However, correctly understanding the future is only the first part of the challenge. Understanding future perils in time to harness the national instruments of power is the second task in the making of national security strategy. The third task is to take the appropriate corrective actions that serve the national interest best and is in concert with core national values.

National security strategy is, as Wylie succinctly determined, a system of measures linked together by a unity of purpose. The first step as in any problem solving, is to identify correctly and to understand the problem. American strategist Harry R. Yarger describes it as understanding “the various elements of the environment and the actors involved”.⁵ The problem with regards to a national security strategy is future challenges and threats to national security. Thus, the first challenge for a national security strategy is to anticipate the future and understand potential threats.

The second task focuses on the timeliness of strategy. There are two aspects of timeliness, both are equally important. The first is the strategist must connect the past with the future and recognize continuities as well as disruptions in the flow of history.⁶ The actions planned in strategy must be executed in a timely manner in order to achieve desired effects. Unanticipated and undesired effects may come about as a consequence of bad timing, not only because of bad strategy. The other aspect of timing concerns the lead times for adaptation and harnessing of state resources. For example, shifting economic resources from other domains in order to significantly increase the military capability of a state takes time. Thus, strategic decision points must be designated in accordance with the timeline for preparations for implementation.

The third task for national security strategy is to devise a solution appropriate to the problem, to policy goals, to available resources, and in line with core national values. It requires a thorough understanding of future challenges and creative thinking to come up with appropriate and adaptable strategy. British strategist Colin Gray asserts that the intellectual demands for creativity are significant in the business of

⁵ Yarger, Harry R. *Strategy and the National Security Professional: Strategic Thinking and Strategy Formulation in the 21st Century*, 31.

⁶ Yarger, Harry R. *Strategy and the National Security Professional: Strategic Thinking and Strategy Formulation in the 21st Century*, 23.

strategy making.⁷ Furthermore, the strategist must know his or her own society well to recognize the constraint placed on strategy by society. Yarger writes that “Ethical thinking is an important competency in the formulation of policy and strategy. It bears directly on their success”.⁸ A strategy must be firmly anchored in core national values to gain support from the society.

Chapter 2 focuses on strategy in the grand strategic realm. This includes both grand strategy and national security strategy, both of which operate in the grand strategic realm. It builds on Chapter 1 and the different elements of strategy extracted from classical and modern analysts of the subject identified in that first chapter. It attempts to give a pertinent meaning to what grand strategy and national security strategy is, the context within which it operates and the purpose of it. The intention is to disclose the true nature of grand strategy, a nature that Colin Gray pronounces as timeless and universal.⁹ In line with what Chapter 1 revealed, the story of strategy is one that details the relationship between ends, means and purpose, much like Clausewitz found himself exposing in his theory of war.¹⁰ Thus, the basic nature of strategy has applicability to military strategy as well as grand strategy and national security strategy.

The first section of Chapter 2 begins with a definition of grand strategy and national security strategy, followed by a clarification of the similarities and differences among the two. These two types of strategies are obviously closely linked but the concepts are divided by their purpose and character. The second section of Chapter 2 explains the concept of marshaling context in support of strategy. In order to properly do that, section two also defines the meaning of context. The third section of Chapter 2 investigates the environment strategy function in. It takes a close look at how the international system works from different perspectives and how complex relationships in an essentially open ended system complicate grand strategy. The fourth and final section looks into some of the requirements that are placed on a strategist at the grand strategic level.

⁷ Gray, Colin S. *The Strategy Bridge: Theory for Practice*, 61.

⁸ Yarger, Harry R. *Strategy and the National Security Professional: Strategic Thinking and Strategy Formulation in the 21st Century*, 14.

⁹ Gray, Colin S. *The Strategy Bridge: Theory for Practice*, 41 and 60.

¹⁰ Aaron, Raymond. *Clausewitz: Philosopher of War*, 3.

GRAND STRATEGY AND NATIONAL SECURITY STRATEGY DEFINED

The concepts of grand strategy and national security strategy are similar yet different. This section defines grand strategy and delineates the difference between it and national security strategy. For reasons that will become obvious, national security strategy does not require a separate definition. However, prior to the definition, a further point is worthy of mention.

Everything ranging from individuals to loosely composed network-based groups to multinational corporations act in the international system, and sometimes states have to deal with them, but grand strategies and national security strategies are normally developed and used by states only. As American political scientist Elisabeth Hanson concludes, states are still the most powerful actors in the international system, even if emerging communication technologies empower other types of actors.¹¹ Her estimation and the fact that states are the main developers and consumers of grand strategy and national security strategy forms the basis for the decision to focus on states. However, it does exclude non-state actors from playing an important role in grand and national security strategies.

American military historian Harold R. Winton points out that an important function of theory is to properly define different concepts and establish boundaries that explain what the concept is and is not.¹² Chapter 1 criticized existing definitions as inadequate or inappropriate for grand strategy. However, most of the existing definitions contain useful elements and with some additions, it is possible to construct a suitable definition of grand strategy. Thus follows the definition of grand strategy, which builds on the four grand strategic themes identified in Chapter 1 and reads as follows:

The role of grand strategy is to systematically marshal context to reinforce desired change while mitigating unwanted change in order to secure

¹¹ Hanson, Elisabeth C. *The Information Revolution and World Politics*, 229-230.

¹² Winton, Harold R. "An Imperfect Jewel: Military Theory and the Military Profession", 2.

continuity or obtain change in an open system. The ultimate objective is to improve or maintain security, increase the wealth of the state and protect the chosen way of life.¹³ The purpose of grand strategy is to ensure a favorable continuation of events and attaining continuing advantage.¹⁴ However, for some states, the purpose of strategy can be to obtain a less unfavorable continuation of events. Finally, the essence of strategy is to explore and decide on different ways to use available means in pursuit of ends determined by politics and ideally expressed in policy.¹⁵

The definition clearly consists of three different parts. Each part answers an important question about grand strategy. The part explaining the objective answers the question of why grand strategy is important. Improving or maintaining security, increasing the wealth of the state and protection of the chosen way of life are common end goals for states.

Some analysts include prestige as an important goal for states. The definition deliberately excludes prestige because prestige has no intrinsic value. Its significance lies in its instrumental utility. State leaders can use prestige to legitimize their rule over the population, or they can use it to attract partners willing to cooperate with them.¹⁶ In the latter case, the true objective is usually to increase or maintain security or to increase the wealth of the state by trade.

It is of course also possible to view increase in wealth as an instrumental goal. That is true if the ultimate goal is to enhance the welfare of the people, which then is the true goal. However, a strong economy has an intrinsic value because economy in broad terms, with resources being an important part of economy, underpins all other instruments of power. This function is why increase in wealth merits as an end goal for states. Chapter 5 contains a more exhaustive discussion of national goals.

The sentence describing the purpose of grand strategy answers the essential question of what grand strategy does to attain the goals of the state. It attempts to ensure

¹³ Bull, Hedley. *The Anarchical Society: A Study of Order in World Politics*, 4.

¹⁴ Dolman, Everett Carl. *Pure Strategy: Power and Principle in the Space and Information Age*, 5 and 6.

¹⁵ Gray, Colin S. *Explorations in Strategy*, 4.

¹⁶ Mansfield, Edward D. and Jack Snyder. *Electing to Fight: Why Emerging Democracies Go To War*, 58.

an advantageous continuation of events and attaining continuing advantage for the state in question. This part of the definition clearly rejects characterizations of strategy relevant for war only and it ties in with Liddell Hart's concept of a better state of peace, too. Because by definition, after war comes peace. Besides, if [bad] luck will have it, after the peace a new war might emerge. The purpose of the grand strategy is to ensure that the state finds itself in as advantageous position as possible after war, in war and before war. Later sections of the chapter elaborate more on the centrality of continuous advantage.

The first part of the definition of grand strategy answers the question of how it accomplishes the desired goals. It does that by marshaling context, either to invoke change or to ensure continuity over a course of events. Strategy is about managing change.¹⁷ Whether change or continuity is desired is determined by which one that leads to the greatest continuing advantage, or if the choices are limited to negative goals, to the least disadvantage. The complex nature of the context and the, for each individual state, open ended system makes prudent and successful marshaling a difficult task. A later section in this chapter defines context and describes in more detail how strategists can marshal it to their own advantage.

The final portion of the definition of grand strategy describes its essence. Many existing definitions of strategy stress that it connects ends with means. While that is true, it helps to clarify that strategy really is about finding appropriate ways to use the means in order to accomplish established goals. The shrewd analyst of strategy, Gray, is adamant that the goals of grand strategy originates in politics and are hopefully reflected in policy.¹⁸

What is not always as obvious is that politics also determine the means. The means enable and restrict strategy in attaining its goals, which is where imagination and creativeness on the part of the strategist enters onto the scene. Of course strategy affects the means and the ends. They can never be regarded in isolation from each other as

¹⁷ Dolman, Everett Carl. *Pure Strategy: Power and Principle in the Space and Information Age*, 1.

¹⁸ Gray, Colin S. *The Strategy Bridge: Theory for Practice*, 29.

Clausewitz pointed out.¹⁹ In addition, it illuminates the intrinsic value of a strong economy.

A strong economy has a much higher probability to create new and unanticipated means when the course of events requires than has a limited economy. A strong economy facilitates strategic adaptability and flexibility. For example, Japan experienced the uncomfortable surprise of a rapidly rebounding US, enabled by economic strength, after the Japanese surprise attack on Pearl Harbor in 1941.²⁰

This leaves the task of separating the concepts of grand strategy and national security, for while they are closely related, they are not the same. Grand strategy can mean two different things. It can be an umbrella term for strategy devised and executed at the national level, and represent access to and the applied use of a state's instruments of power in a particular situation.

Traditionally, the instruments of power have meant diplomatic, information, military and economic dimensions of a society, which could be made available to the strategist. Yarger uses the definition of U.S. Army War College and US Joint Publication 1-02 to define grand strategy: "Grand strategy. An overarching strategy summarizing the national vision for developing, applying and coordinating all the instruments of national power in order to accomplish the grand strategic objectives of: preserve national security; bolster national economic prosperity; and promote national values."²¹

In essence, grand strategy aims at obtaining and maintains grand strategic objectives, which in this thesis are declared as state goals in Chapter 4. These objectives are wider than just security and the wider scope is what mainly distinguishes them from grand strategy.

Grand strategy can however also mean the practical and time bound use of the instruments of power in a particular situation; in short, it becomes applied grand strategy. This is what British Prime Minister Winston Churchill characterized it as such when he

¹⁹ Clausewitz, Carl von. *On War*, 87.

²⁰ Peattie, Mark R. *Sunburst: The Rise of Japanese Naval Air Power 1909-1941*, 198.

²¹ Yarger, Harry R. *Strategy and the National Security Professional: Strategic Thinking and Strategy Formulation in the 21st Century*, 21.

took stock of the British situation just prior to the Battle for Britain. Churchill carefully weighed how to use his economic instrument to prepare for a long war and how the military forces and early on the RAF would defend the British Isles from German air attack.

Churchill's intent was to create an image that would convey the message that Great Britain was the only remaining protector of liberal values against German tyranny. He directed this message straight to the US people. In Churchill's estimation, this would force the American President, Franklin D. Roosevelt to support Great Britain and tip the scales concerning resource for the rest of the war and rescue liberal democracies from immediate peril.²² Churchill exercised grand strategy through all instruments of power that he could harness in the situation at hand. This is a case of applied grand strategy.

National security strategy is in this regard a subset to grand strategy, because it comprises all the traditional instruments of power. Yarger's definition of national security again comes from U.S. Army War College and US Joint Publication 1-02, which defines it as: "National Security Strategy. The art and science of developing, applying and coordinating the instruments of national power (diplomatic, economic, military and informational) to achieve objectives that contribute to national security."²³

A national security strategy is a specific version grand strategy, aimed at obtaining and maintaining security. It is often developed through a long political process with wide societal and governmental involvement, to be a standing, long-term declaration of intent, equally relevant in peace, crises, and conflict. It is therefore not written for a particular occasion but for a particular period of time.

A national security strategy tries to anticipate potential conflicts and through timely coordination of the national instruments of power attempts to prevent conflicts from occurring or to reach their potential if prevention fails. The point of a national security strategy is not only to coordinate national resources but to deter potential trouble makers by pointing out what actions will be taken if indeed trouble they make.

²² Bungay, Stephen. *The Most Dangerous Enemy: An Illustrated History of the Battle of Britain*, 15-17.

²³ Yarger, Harry R. *Strategy and the National Security Professional: Strategic Thinking and Strategy Formulation in the 21st Century*, 21.

The definitions provided by Yarger indicate that grand strategy is an overarching concept that concerns all instruments of power and aims at attaining state goals. The national security strategy is a subset that also concerns all instruments of power but for the specific purpose of creating and maintaining security. Because grand strategy and national security strategy operates in a dynamic and complex environment, they need to be adaptive and flexible.

Although grand strategy and national security strategy have similarities to military doctrine, they both must incorporate ample room for adaption. Military doctrine describes “what warriors believe and act on.”²⁴ The doctrine is good for making consensus and facilitates common understanding on the best practice for conducting military operations.

However, if the doctrine is found lacking in a certain situation, it can be thrown out the window the minute conflict begins. A telling example is how the US introduced what American air warfare analyst Benjamin S. Lambeth characterizes as fundamentally new concepts for offensive air power, operation both independently and in support of ground operations during Operations Enduring Freedom in Afghanistan 2001.²⁵

In many battles, ground forces supported air forces by coercing Taliban ground units to concentrate in the face of the ground threat, an act that made them vulnerable to air attack.²⁶ The US military organization boasted enough flexibility to substitute an old, and for the situation at hand, inappropriate doctrine with a new, invented almost as events unfolded.

Viewed with this experience in mind, national security strategy transforms into a system of expedients when applied to each particular situation, as Prussian General Helmuth von Moltke succinctly put it. von Moltke held the opinion that strategy embodied the “development of the original leading thought in accordance with the constantly changing circumstances.”²⁷

²⁴ Kline, John J. *Space Warfare: Strategy, Principles and Policy*, 129.

²⁵ Olsen, John Andreas ed. *A History of Air Warfare*, 276.

²⁶ Call, Steve. *Danger Close: Tactical Air Controllers in Afghanistan and Iraq*, 51.

²⁷ Hughes, Daniel J. *Moltke: On the Art of War – Selected Writings*, 47.

The fact that the national security strategy must be adapted to the particular circumstance of each situation does not indicate that national security strategies are a waste of time. It is merely a practical expression and modification of Gray's assertion that strategy can be divided into a general strategy which is largely timeless and specific strategies, developed to manage particular actors under particular circumstances.²⁸

Naturally, the national security strategy is bound by its time as well as a particular strategy. Its role is however to be long term rather than designed ad hoc, which makes Gray's distinction between general strategy and particular strategy philosophically valid. A national security strategy connects a vision with a national common understanding of what the state strives for and explains the purpose of the endeavor.

Moreover, a good national security strategy incorporates a speed vector that gives states a sense of direction, not only of where it is going but also how soon it will get there. An important aspect of national security strategy is that it needs to be robust in the sense that the strategy must enable a state to adapt in a timely, efficient and effective manner in the face of a constantly changing environment.²⁹

The national security strategy is furthermore important because it forms the basis for decentralized execution. With a sound national security strategy, different ministries, departments, agencies, divisions etc. know how to manage and develop their own areas of responsibility.

Delegation is of course of outmost importance in any large bureaucracy since it dramatically reduces the level of internal communication, promotes effectiveness, and preserves flexibility.³⁰ It liberates the creativity of coworkers and allows them to plan and conduct their activity with a high degree of independence and to meet challenges the way they see fit, without digressing from the vision.³¹ These are the virtues of well formulated national security strategies.

²⁸ Gray, Colin S. *The Strategy Bridge: Theory for Practice*, 41-42.

²⁹ Heijden, Kees Van Der. *Scenarios: The Art of Strategic Conversation*, 290.

³⁰ Hinote, Clinton. *Centralized Command and Decentralized Execution: A Catchphrase in Crisis?*, 14.

³¹ Smith, Perry M. *Assignment Pentagon: How to Excel in a Bureaucracy*, chapters seven and eight.

MARSHALING CONTEXT IN SUPPORT OF STRATEGY

The purpose of the following paragraphs is twofold. First, it describes the meaning of the context within which strategy functions. This is important for the understanding of how a strategist is constrained and enabled by the conceptual environment he or she must function in.

Second, it examines the instrument the strategist uses to marshal context. This instrument is in its abstract form power. Power is the currency of with which to affect other actors within the same system. It has both hard and soft elements and the strategist create it from the use of the instruments of national power. However, context is the first matter to scrutinize.

Context can be thought of in many different ways. According to the Oxford Dictionary it means “the circumstances that form the setting for an event, statement, or idea, and in terms of which it can be fully understood and assessed.”³² A circumstance is in turn defined as “a fact or condition connected with or relevant to an event or action.”³³

Defining condition, allows us to finally get a thorough grip of what circumstance really mean. The Oxford Dictionaries reveals that a condition is “the factors or prevailing situation influencing the performance or the outcome of a process.”³⁴ Aggregating the combined explanations at hand bestows that context broadly speaking consists of facts and factors affecting a certain process in a specific situation. Before these facts and factors are properly delineated, it is useful to explore a philosophical angle to marshaling context to one’s advantage.

Dolman provides a steady and creative handrail guiding the exploration of strategic manipulation. Dolman discusses the differences between a tactical and a strategic outlook. He asserts that “tactical planning takes into account the numerous boundaries that restrict action; strategic planning attempts to manipulate the boundaries

³² http://oxforddictionaries.com/view/entry/m_en_us1235627#m_en_us1235627.

³³ http://oxforddictionaries.com/view/entry/m_en_us1233344#m_en_us1233344.

³⁴ http://oxforddictionaries.com/view/entry/m_en_us1235196#m_en_us1235196.

that enable action.”³⁵ Dolman’s boundaries correspond well to the facts and factors in the present idea of marshaling context in support of strategy.

Dolman’s boundaries are real and artificial restrictions of time and space, social and historical factors and technological properties. However, the restrictions that mainly interest Dolman are of a normative character. He asserts that restrictions manifest themselves as rules, borne out of values, customs and norms. Regimes are the manifestation of the impact of rules and principles on behavior and expectations. Regimes, Dolman writes, constitute the structure within which decisions and actions take place.³⁶

Of course, regimes are in place to enable decisions and actions, something Dolman acknowledges, but at the strategic level, they constrain the number of available options because options outside of existing rules, norms and customs are difficult to get through a political process. How much the strategist can bend the structure of the regime depends on the gravity of the situation. In circumstances of existential threat, society is probably more inclined to adjust and tolerate more radical departures from exiting regimes than if the threat is of less concern. Nevertheless, there are additional insightful perspectives on the strategic boundaries, which are important to consider in the realm of strategic context.

Gray takes a holistic approach to strategic context. In his view, context consists of different dimensions of society. He identifies political, social-cultural, economic, technological, military, geographical and historical dimensions of strategy.³⁷ They all combine and create a characteristic national strategic culture.³⁸

In some analysts’ views these are also sources of conflict. The military dimension can give rise to an arms race by introducing a security dilemma, which eventually have

³⁵ Dolman, Everett Carl. *Pure Strategy: Power and Principle in the Space and Information Age*, 4.

³⁶ Dolman, Everett Carl. *Pure Strategy: Power and Principle in the Space and Information Age*, 79.

³⁷ Gray, Colin S. *The Strategy Bridge: Theory for Practice*, 39.

³⁸ Gray, Colin S. *Modern Strategy*, 131-151.

the potential to result in conflict. On the other hand, social scientists such as Robert Keohane attach great value to the role of economy as a contextual factor in conflicts.³⁹

In any case, these dimensions of society constitute timeless contextual factors that a strategist must thoroughly understand and be able to marshal creatively. This is an important emphasis, a comprehensive understanding of the contextual factors is required, not just information about them. In addition, the understanding of contextual factors must span the opponent's international situation as well as one's own, the domestic situation in both countries as well as the situation in neutral states, who may be affected by the current conflict. To complicate matters further, creative and deliberate changes in the contextual factors will have both second and third order effects – at least. Plus, the opponent will not only react to any actions taken by our side, in a conflict situation it will actively take measures to frustrate our actions and intentions.

In conclusion, the strategic context is both physical and normative. The context enables as well as restricts strategy. Armed with this understanding, it is appropriate to explain more precisely what marshaling context actually means and how it can be done to one's own advantage. An important aspect of this is the relationship between marshaling context to one's own advantage and the concept of power, which perhaps is the more widely known term describing two sides and their relative strength in a conflict.

Marshaling context to one's own advantage implies using influential facts and factors with the intent to produce a specific outcome. In line with Dolman's decidedly relative concept of continuous advantage as the true goal for strategy, American political scientist Kenneth N. Waltz argues that "an agent is powerful to the extent that he affects others more than they affect him."⁴⁰ Power is a source of energy for the strategist to tap and translate into actions.

It is the focus of the coming paragraphs because power is ultimately the instrument that strategist can utilize to marshal context to his or her advantage. Power is the bargaining currency that the strategist can draw from the different instruments of

³⁹ Keohane, Robert O. *After Hegemony: Cooperation and Discord in the World Political Economy*, chapter 2 beginning on page 18.

⁴⁰ Waltz, Kenneth N. *Theory of International Politics*, 192.

power. There are several yardsticks for measuring power but one that seems common is to rank states in terms of how well they do in a combination of measurable factors.

Indian born economic analyst Parag Khanna argues that good indicators of state power are economic productivity, global market share, technological innovation, natural resource endowment, population size and intangibles such as national will power and diplomatic skill.⁴¹ Waltz adds political stability and competence, while Dutch-American geostrategist Nicholas Spykman includes geography, which in his famous assessment is the “most important factor in foreign policy because it is the most permanent.”^{42 43} Spykman’s astute observation indicates another fact concerning the elements of power.

All the indicators of state power can be divided in two categories, a reflection made by American political scientist Professor Hans Morgenthau. He splits them into those elements of national power that are relatively stable and those that are subject to constant change.⁴⁴ Obvious examples of stable elements of power are geography and natural resource endowment. Examples of less stable factors, which are easier to change, are diplomatic skill and national will. The other factors fall somewhere in between and they require substantial strategic foresight to change.

Population size and competence are factors that can be changed by the right incentives and social engineering but there is no question that it takes substantial amounts of time and resources to change them. That is, if the factors are not abruptly changed by war or natural disaster. Yet, lead times are an important insight for the strategist, because it speaks to the importance of the long-range perspective necessary in a national security strategy and the stable factors will likely resist attempts to change them in the short term.

National power thus consists of several elements. Power is ultimately instrumental; it is always a means to an end. Power for its own sake is worth very little. It is about how actors can translate power into compelling or coercing action and postures that lends it its true value. Power is in many respects similar to the physical notion of

⁴¹ Khanna, Parag. *The Second World: Empires and Influence in the New Global Order*, xv.

⁴² Waltz, Kenneth N. *Theory of International Politics*, 131.

⁴³ Spykman, Nicholas. *The Geography of Peace*, 41.

⁴⁴ Morgenthau, Hans J. *Politics Among Nations: The Struggle for Power and Peace*, 110.

energy. The accumulation of energy and energy itself is only of value because it has the inherent potential to transform and cause effects in the real world. And as Waltz reminds us, it is a comparative concept.

In grand strategy, power only has utility if it produces security, wealth or preserves a desired way of life. This fundamental fact is as relevant between states as it is within states. The ensuing text is not an attempt to fully capture the theories behind the concept of power, coercion and cooperation. It is an entirely utilitarian effort to summarize some of the most salient characteristics that have immediate bearing on how strategists can marshal context to his continuous advantage.

Because many strategic thinkers are focused on strategy in war and not in peace, they tend to narrow their attention to the coercion side of power. One of the first scientists to formalize what has long been known to kings and emperors is American economist Thomas C. Schelling. In his influential book *The Strategy of Conflict*, he maintains that conflicts are bargaining situations, negotiations form either an efficiency aspect or from a distributional aspect. Bargaining activities, from an efficiency aspect, are negotiations where both parties recognize the possibility of mutually profitable adjustments, while bargaining from a distributional aspect is negotiating from the standpoint where both parties realize that a better bargain for one means less for the other.⁴⁵

Schelling distinguishes between brute force, which is a purely military and undiplomatic forcible action concerned with enemy strengths, and coercion that exploits the enemy's wants and fears.⁴⁶ Furthermore, Schelling asserts that coercion is most effective when the power to hurt the opponent is held in reserve and not used. It is the threat of possible negative effects that compel the opponent to submit to the will of the coercer.

While Schelling does a good job in laying the foundation for coercion in strategy, American political scientist Robert Pape simplifies the mechanism where coercion affects

⁴⁵ Schelling, Thomas C. *The Strategy of Conflict*, 21.

⁴⁶ Schelling, Thomas C. *Arms and Influence*, 3.

decision making. In Robert Pape's terminology, coercion is an effort to alter the behavior of another state by manipulating the cost benefit-analysis that occurs in a rational decision making process. The coercer seeks to influence the opponent's calculus of both costs and benefits, and the probability for their occurrence.⁴⁷

A complementary concept to that of coercion is deception. Deception recommends itself as a vital tool for the strategist because it is another way of affecting other actor's decision making process. Sun Tzu was an early theorizer and proponent of trickery in strategy. He was a big believer in manipulating context as is evident from the following quote: "... the general must create situations which will contribute to their [the plans] accomplishment ... [and] by situations I mean that he should act expediently in accordance with what is advantageous and so control the balance." On the same page Sun Tzu declares, "All warfare is based on deception."⁴⁸

Deception, as explained by the Oxford Dictionary is when a person causes someone to believe something that is not true, typically in order to gain some personal advantage.⁴⁹ In Pape's language, it is to influence the opponent to miscalculate cost and benefits, based on false information in order to affect the opponent's behavior in advantageous ways.

Even if the opponent suspects deception, its mere existence introduces uncertainty to their cognitive processes. It distorts the opponent's ability to observe and orient, which in turn hinders their ability to make rational and accurate decisions. If rational calculation is a part of USAF Colonel John Boyd's OODA-loop, then deception cuts right to the heart of it.⁵⁰ Quite evidently, all of the parameters above belong to the traditional view of national power but in more recent years scholars have introduced an additional concept of national power, soft power.

American political scientist, Joseph S. Nye introduces the concept of soft power, which is cooperative in nature. Soft power is thus diametrically opposite to hard power

⁴⁷ Pape, Robert A. *Bombing to Win: Air Power and Coercion in War*, 16.

⁴⁸ Griffith, Samuel B. *Sun Tzu: The Illustrated Art of War*, 96.

⁴⁹ http://oxforddictionaries.com/view/entry/m_en_us1238781#m_en_us1238781.

⁵⁰ Bousquet, Antoine. *The Scientific Way of Warfare: Order and Chaos on the Battlefields of Modernity*, 189-194.

that works mainly through coercion and compellence. Nye makes the case that soft power rests on a state's ability to set the political agenda in a way that shapes the preferences of others. It co-opts rather than coerces and is thus a very different instrument for marshaling context in one's own favor.

Soft power has close similarities to Schelling's distributional aspects of bargaining, where both parties in a conflict recognize that they have more to lose by continuing the conflict than they win by cooperating. As war expends resources, it is less costly for most states to cooperate than fight each other. However, cooperation does not come freely in an international system where self-help forms the basis.⁵¹ It is built on trust and reciprocal behavior.

Soft power is also related to Martin Libicki's concept of friendly conquest.⁵² Libicki writes about a way to gain influence in the cyber sphere without coercion. Libicki writes that "Friendly conquest in cyberspace is based on different mechanisms. It builds on voluntary transactions, at least first.

Yet, conquest can be said to have occurred if subsequent interactions and dependencies enable the conqueror to make reliable and effective use of the assets of the conquered."⁵³ Of course, the strategist is not so much focused on conquering as to gain a position of contoured advantage over the course of time. However, it is a strategy of co-option rather than coercion or compellence, much like the concept of soft power.

American political scientist Robert Axelrod demonstrated in the early 1980's that the most successful cooperative behavior is not naïve and cooperation requires time to develop into full bloom. Axelrod found out that cooperation based on the logic of tit for tat worked best. Tit for tat means that if your possible partner or adversary behaves well, you behave well. If your partner or adversary tries to cheat, you punish him for it by not cooperating. If he returns to a cooperative pattern, you do too.⁵⁴

⁵¹ Waltz, Kenneth N. *Theory of International Politics*, 111.

⁵² Libicki, Martin C. *Conquest in Cyberspace: National Security and Information Warfare*, 12-13.

⁵³ Libicki, Martin C. *Conquest in Cyberspace: National Security and Information Warfare*, 126.

⁵⁴ Robert Axelrod. *The Evolution of Cooperation*, 27-55.

Axelrod furthermore illustrates that there is a peculiar chronology to cooperation. The shadow of the future implies that if two actors determine it likely that they will meet again; they will regulate their behavior in the first meeting precisely because they are afraid that bad behavior will be punished during next meeting.⁵⁵

For the strategist, manipulating context to one's own advantage means taking a long view of international relationships. As Axelrod demonstrates, it takes time to build a cooperative relationship, where trust runs deep but it is ruined in the blink of an eye by bad behavior. How little or much it takes to ruin established cooperation depends on the level of trust that exists between the states. If a state wields what other countries view as legitimate power, they probably have less inclination to challenge it.⁵⁶ However, hard power is necessary in situations where pace cannot be kept on acceptable terms and negotiations and cooperation fails.

However, the relative access to power is not the only determinant of the outcome of a conflict. Deception and how wisely the power is wielded is equally important, as American political scientist Edward N. Luttwak proves. Luttwak describes Churchill's profound understanding of the logic of strategy at the beginning of World War II, when Britain was less powerful compared to Germany and still ended up victorious.⁵⁷ He ascribes this successful outcome to a clever use of strategy. Imagination, creativity and anticipatory abilities are perhaps just as important as access to traditional forms of power. This is especially true in the complex environment where strategy operates.

This section first defined grand strategy and national security strategy. Second, it described precisely the context which strategy should marshal. Third, it discussed power, which is the instrument that strategists can harness to marshal the context. Power is an abstraction of what the instruments of power really brings, either in hard or soft forms. However, to understand strategy at the grand strategic level properly, it is necessary to

⁵⁵ Robert Axelrod. *The Evolution of Cooperation*, 58-59.

⁵⁶ Nye, Joseph S. *The Paradox of American Power: Why the World's Only Superpower can't go it Alone*, 9.

⁵⁷ Luttwak, Edward N. *Strategy: The Logic of War and Peace*, 50-51.

look into the complex environment within which it functions, because complex systems operate in accordance with peculiar logic.

STRATEGY AND COMPLEXITY

This section describes the demanding environment in which strategy operates. It is an unpredictable, highly dynamic environment where very few phenomena operate along comfortable mechanistic principles. The concept of complexity is a setting a strategist must be comfortable with. However, the section must begin with an analysis of different world views to defend its position on complexity. The neorealist academic tradition, for example, holds forth that relations between nations operate within a simple yet firm regulatory structure that significantly simplifies prediction. Against this somewhat mechanistic view of the world stand the complex realist and the liberal schools of thought.

The very notion of strategy forcefully refutes the existence of deterministic laws in social relation. The existence of such laws would reduce the craftwork of strategy to an insignificant element of international relations. The role of policy making and politics is limited accordingly. Neorealism, whose main designer is Waltz, locates its explanatory power at the systemic level of analysis.

The structure of the system determines the relationship between states, while the distribution of power determines the structure.⁵⁸ States behave in predictable manners in accordance with their position in the system. This is because the “structure of a system acts as constraining and disposing force...systems theory shows why changes at the unit level produce less change of outcomes than one would expect in the absence of systemic constraints.”⁵⁹ Waltz moreover states that “to the extent that dynamics of a system limit the freedom of its units, their behavior and the outcomes of their behavior become predictable.”⁶⁰

⁵⁸ Waltz, Kenneth N. *Theory of International Politics*, 144.

⁵⁹ Waltz, Kenneth N. *Theory of International Politics*, 69.

⁶⁰ Waltz, Kenneth N. *Theory of International Politics*, 72.

Waltz does not leave very much room for the strategist to creatively marshal the context to his or her advantage, at least at the systemic level of analysis. Yet, if the scope of his assertion is limited to the difficulty of individual strategist to change the structure of the system, then it seems more in line with contemporary politics. Waltz is actually more interested in explaining continuity rather than change with in the international system.⁶¹

Furthermore, Waltz's underlying premise is that security is scarce in any system functioning by an anarchic ordering principle.⁶² To cover situations where security is less scarce and the negative effects of anarchy are less tangible, requires abandoning neorealism for other theories of the international system. Liberalism offers other insights into international politics conducted in anarchy.

Liberal views of the international system are actually quite close to that of complex realism. Liberalism originated as a domestic political philosophy where individual rights and duties were at the center of the political theory.⁶³ Liberalism recognizes anarchy in the international system. In fact, the rights and duties they espouse can be interpreted as ways to come to grips with the anarchy within states.

Because Liberalist theory builds from the state up to the international system, it recognizes that states have different character. American political scientist Michael W. Doyle writes, "...for Liberals, states behave differently and are not homogenized by the structural system."⁶⁴ Liberals thus maintain that states have a specific character, which is not determined by international structure but by their type of constitution.⁶⁵ Liberalism does however acknowledge anarchy as the fundamental organizational principle in the international system. In their view, based on self-interest and for mutual gain, states can choose to cooperate for mutual benefit, not only out of necessity for security purposes.

Doyle observes that theorists premise complex realism based upon three assumptions. First, the organizing principle of the international arena is anarchy.

⁶¹ Waltz, Kenneth N. *Theory of International Politics*, 64.

⁶² Waltz, Kenneth N. *Theory of International Politics*, 111.

⁶³ Doyle, Michael W. *Ways of War and Peace*, 208.

⁶⁴ Doyle, Michael W. *Ways of War and Peace*, 211.

⁶⁵ Allison, Graham and Philip Zelikow. *Essence of Decision: Explaining the Cuban Missile Crisis*, 37.

Second, the primary actors in the international arena are sovereign states. Third, “the lack of a legitimate international source of controlling authority means no restraint – whether moral, social, cultural, economic or political – is sufficiently strong or general either to eliminate completely or to manage reliably conflicts of interest, prestige or value.”⁶⁶ For complex realism, these three premises give rise to an “omnipresent threat of war.”⁶⁷ However, in contrast to neorealism, complex realism views political judgment as crucial because in their assessment, the structure of the international system does not constrain interstate interaction significantly.

In essence, these three versions of international theory, neorealism, complex realism and liberalism, provide the strategist with different insights. Neorealism contributes with an understanding of how states are affected by the structure of the international system, especially when security is scarce. Complex realism takes the same basic premises as neorealism but concludes that political judgment is an important aspect of international relations. Finally, liberalism recognizes that states are not always unitary actors because they have significant domestic differences and that states can choose to cooperate for mutual benefit despite the international anarchy.

Neorealism, complex realism and liberalism form an epistemological base for the understanding of how the world functions with regards to strategy. However, within the boundaries of international theory, relations among states take on a complex character.

The following paragraphs describe the mechanics behind complex systems. The first portion introduces the complex systems concept while the second portion studies complex systems effects in six different categories. The first category speaks of the unpredictability inherent in complex systems while the second category views relations among units within the system. The third category covers non-linear functions whereas the fourth category studies how the actions of actors change systemic behavior. The fifth category analyses how outcomes often are disconnected from intentions while the sixth and last category explore how the adversity aspect of strategy plays out in a complex system.

⁶⁶ Doyle, Michael W. *Ways of War and Peace*, 45.

⁶⁷ Doyle, Michael W. *Ways of War and Peace*, 45.

Much of the complexity in strategy comes from the fact that it operates in an open system, often with one or several rivals or opponents actively trying to hinder some of one's own goals from being realized. American computer scientist John Holland has pointed out that cultural and social societies are complex adaptive systems.⁶⁸ This may feel intuitively right and has much support from the social sciences. Indeed, the basics behind the scientific discipline of international relations are two or more separate social system interacting with one another.

Complexity is a close kin to chaos theory but they are not identical. Michael Oren, historian and former Israeli Ambassador to the USA, relates a classical description of chaos theory. He write that in chaotic systems, "Much like the hypothetical butterfly that, flapping its wings, give rise to currents that eventually generate a storm, so, too, might small, seemingly insignificant events spark processes leading ultimately to cataclysm."⁶⁹ He does add that the "butterfly needs a certain context – the earth's atmosphere, gravity, the laws of thermodynamics – to produce its tempest."⁷⁰ This specific context differentiates complexity from chaos because chaos denies the very existence of any organizing principles while complexity requires organizing principles. Complexity only diffuses the causal relationships between actions and effects. Above all, complexity theory spurns mono-causal explanations.

Complexity is again different from chaos. Complexity recognizes the existence of one or more fundamental structures and operating logics that does not exist in the true meaning of chaos. In many ways complex systems are self-organizing. Otherwise they would deteriorate into pure chaos.⁷¹

Complexity stems not from lack of structure but from multiple interconnections between units. Variables are mutually dependent and it is not possible to analyze change in one variable when all other variables are held constant. However, by just being aware of and acknowledging existing connection, it is possible for the strategist to gain some

⁶⁸ Waldrop, Mitchell T. *Complexity: The Emerging Science at the Edge of Order and Chaos*, 145.

⁶⁹ Oren, Michael B. *Six Days of War: June 1967 and the Making of the Modern Middle East*, 2.

⁷⁰ Oren, Michael B. *Six Days of War: June 1967 and the Making of the Modern Middle East*, 2.

⁷¹ Waldrop, Mitchell T. *Complexity: The Emerging Science at the Edge of Order and Chaos*, 65.

understanding of the variables at play.⁷² Carl Dolman determines that because there is some structure to complex systems; “[they] have a capacity to display a variety of interrelated patterns”.⁷³ If a system is adaptive it will react to new stimuli with new form of behavior not previously seen and this creates a new pattern, discernable for anyone who knows what to look for and who has an open mind.⁷⁴

Holland succinctly and eloquently expressed the essence of social and biological life above. An adaptive system is per definition an open system, meaning that it responds to stimuli generated from outside. The social form of organization labeled states responds to changes in their biological environment, to economic alterations and to actions and intentions of other states among others. The international system is a system exactly because the separate social units, the states, are interconnected. They are first and foremost interconnected because they exist on the same planet and are affected by climatological and ecological changes. The societies are also interconnected through the diplomatic system and trade.

The system appears open to the particular state because no state controls it. Furthermore, it is an open system because, as American social scientist Robert Jervis contends, “...changes in some elements or their relations produce changes in other parts of the system and ... the entire system exhibits properties and behaviors that are different from those of the parts.”⁷⁵ This is very true because the social units in the system are organized hierarchically while the international system itself is structured around anarchy. Moreover, the operating logic of the system is fraught with discontinuities.

The complexity of the system derives its characteristics from the fact that it operates in a non-linear logic. Again, turning to Jervis, “systems often display non-linear relationships [when] outcomes cannot be understood by adding together the units or their relations, and many of the results of actions are unintended.”⁷⁶ This means, for the strategist, that predictions are inherently difficult to make about how other parts of the

⁷² Waldrop, Mitchell T. *Complexity: The Emerging Science at the Edge of Order and Chaos*, 21.

⁷³ Dolman, Everett Carl. *Pure Strategy: Power and Principle in the Space and Information Age*, 94.

⁷⁴ Dolman, Everett Carl. *Pure Strategy: Power and Principle in the Space and Information Age*, 94.

⁷⁵ Jervis, Robert. *System Effects: Complexity in Political and Social Life*, 6.

⁷⁶ Jervis, Robert. *System Effects: Complexity in Political and Social Life*, 6.

system will respond to one's actions. It is an environment the strategist must accept and use to his or her advantage, a fact that is eminently easier said than done.

USAF Colonel John Boyd took this to heart and concluded that uncertainty is a basic human condition.⁷⁷ Boyd goes as far as claiming that there is no "final or complete understanding of war and points to the irreducibly incomplete and evanescent character of any theoretical framework seeking to encapsulate reality."⁷⁸ Thus, in Boyd's assessment, not only war but any behavior within the international system is unpredictable with certainty. Moreover, complexity produces certain other systemic effects that the strategist must be familiar with.

Robert Jervis writes that complex systems produce unpredictable effects because of the interconnection between units. Change in complex systems is normally unpredictable because of the dynamic interrelationship between many factors. Sociology Professor John Urry concludes that there are often massive disproportionalities between causes and effects, at both the agency and structural level. This causes a high degree of unpredictability.⁷⁹

Jervis discovered five different categories of systemic effects that all contribute to give strategy its dynamic character.⁸⁰ The first category identifies that interconnections between units produce indirect, mediated and delayed effects.⁸¹ An example of an indirect strategic effect is the Allied bombing offensive against Germany in World War II, where an important indirect and mediated effect was that it forced Germany to set aside an ever larger share of its industrial output to air defense rather than for equipment useful in the ground offensive in the East.⁸² This forced diversion of German resources was an indirect consequence that needed time to develop. The effect was delayed because it was the gradual accumulation of bomb damage that led to the ultimate consequences.

⁷⁷ Hammond, Grant T. *The Mind of War: John Boyd and American Security*, 173.

⁷⁸ Bousquet, Antoine. *The Scientific Way of Warfare: Order and Chaos on the Battlefields of Modernity*, 189.

⁷⁹ Urry, John. *Global Complexity*, and 40.

⁸⁰ Jervis, Robert. *System Effects: Complexity in Political and Social Life*, 29.

⁸¹ Jervis, Robert. *System Effects: Complexity in Political and Social Life*, 29.

⁸² Overy, Richard J. *The Air War 1939-1945*, 120-122.

The second category of systemic effects concern relations, which Jervis claim are seldom bilaterally determined.⁸³ One state's policy towards another state will have consequences on other states' decision making and behavior. A classic example of this feature is provided by Thucydides, who demonstrates great awareness of this systemic effect.

Thucydides relates the incident between the neutral Melos and Athens, in the year 416 BC, where the Athenians reach the conclusion that they need to punish the Melians hard to send an effective message to other subject states.⁸⁴ Thucydides leaves the reader with the clear understanding that Athens feels compelled to exterminate the population of Melos, not because what they have done but because of the potentially bad future consequences resulting from them leaving Melos unpunished.

The third category Jervis holds forth is the non-linearity of between actions and effects in complex systems.⁸⁵ Actions interact in unpredictable ways, where the output in a non-linear system is not proportional to the inputs. Veritable reversals are possible, dependent on which variables are operating simultaneously. The well-known security dilemma is an example of a reversal in effect compared to the original intention. One state arms itself with the intention to increase its security.

A neighboring state finds the arming of its neighbor a threat to its security with the effect that it arms itself further. With this spiral allowed to continue, an arms race developed from one state's decision to increase its security. If we experiment with the thought that this threatens other surrounding states and it leads to their arming themselves and perhaps band together in alliances, this thought experiment resembles the beginning of the Cold War to a high degree.

Both superpowers acquired nuclear weapons which increased their sense of insecurity and ultimately led to a spiraling arms race. The security dilemma also led to the creation of two opposing military alliance, NATO and the Warsaw pact. The outcome

⁸³ Jervis, Robert. *System Effects: Complexity in Political and Social Life*, 32.

⁸⁴ Strassler, Robert B. *Thucydides: A Comprehensive Guide to The Peloponnesian War*, 353-354.

⁸⁵ Jervis, Robert. *System Effects: Complexity in Political and Social Life*, 35.

is clearly not proportional to the original input, which represents a non-linear relationship with the original action.

Timing is important with regards to this third category. The probability of success when injecting new variables in ongoing processes can be highly dependent on at what stage in the process they are injected. For example, Mikhail Gorbachev forced changes in the direction of economic liberalization in Soviet Union in the late 1980's, changes that ignited political pressure for further liberalization.⁸⁶

Consequently, in 1990 and 1991, Gorbachev lost control over the situation and it was too late for him to reverse the changes he had instigated earlier. The public had lost its patience with him and he could no longer reverse the course of events. By contrast, Boris Yeltsin jumped on the opportunity with widening discontent and managed to time his injection well.

Furthermore, because strategy resides in the realm of social relations, interactions can produce circular effects. According to Jervis, "Systems can produce circular effects as actors respond to the new environments their actions have created, often changing themselves in the process."⁸⁷ The classical illustration of circular effects is again the security dilemma, where one state's efforts to increase its security leads to another states insecurity. The security dilemma causes the other state to take measures to increase its security and this of course changes the environment for the first state, who initiated the security dilemma with no intention of doing so.

Jervis fourth category of systemic effects describes how actors in an interconnected system react to the actions and intentions of other actors as well as to changes in the environment.⁸⁸ It is a consequence of the system being open, interconnected and adaptive. Jervis relates the story of Japan in the 1930's, who feared that conflict would be brought upon it in the future, which triggered Japan's drive to secure continued access to foreign resource that it was so dependent upon, through military conquest in Asia. This in turn prompted the USA to enforce an oil embargo on

⁸⁶ Kuchins, Andrew C. *Russia after the Fall*, 23-25.

⁸⁷ Jervis, Robert. *System Effects: Complexity in Political and Social Life*, 60.

⁸⁸ Jervis, Robert. *System Effects: Complexity in Political and Social Life*, 45.

Japan, which eventually pushed it to attack the USA and the West before it ran out of oil. Instead of providing more security, the actions ascertained the destruction of Japan as it had been known hitherto. In yet another unexpected twist, the West reconstructed Japan and helped it to conquer Asia economically in the 1980's.⁸⁹

This leads to the fifth and final category of systemic effects that affects strategy; outcome does not necessarily follow from intentions.⁹⁰ It is within the difficult territory of unintended and unanticipated consequences. Because the units in a system are interconnected, a message sent for an intended audience will also be heard by other recipients. What seems to be a well formulated message for one audience can be just the opposite for another audience.

Ripple effects or cascading effects are effects spreading uncontrollably in a system after a unit injects an action. This is a contemporary fear concerning the effects of cyber-attack, where neither the attacker nor the defender is absolutely certain of what second and third order effects may develop.⁹¹ However, only because an effect is unintended or unanticipated, it is not by necessity unwanted. Strategists should be prepared to exploit the fact that they and others are not certain of the outcome of their actions, the very basis of brinkmanship.⁹²

In addition to Jervis effects of complexity is the matter of adversity. Strategy is a fundamentally human endeavor even if its results can be fundamentally inhumane. Colin Gray reminds us that strategy is adversarial in nature, because it tries to limit the choices of an opponent.⁹³ It is important to always keep in mind the fact that the opponent in any formalized conflict, defined as a contention over one or more issues that both or all parties recognize, will do anything in their power to frustrate the opponents strategy and goals. Complexity and uncertainty may paint a gloomy picture of the probability of success for strategy. There are however mitigating factors at play, which can open up possibilities for the observant and creative mind.

⁸⁹ Jervis, Robert. *System Effects: Complexity in Political and Social Life*, 60.

⁹⁰ Jervis, Robert. *System Effects: Complexity in Political and Social Life*, 61.

⁹¹ Dam, Kenneth W. and William A. Owens. *Technology, Policy, Law, and Ethics Regarding U.S. Acquisition and Use of Cyberattack Capabilities*, 20.

⁹² Schelling, Thomas C. *Arms and Influence*, 91.

⁹³ Gray, Colin S. *The Strategy Bridge: Theory for Practice*, 33.

In summary, neorealism, complex realism and liberalism are political science theories that form the epistemological base for the understanding of how the world functions with regards to strategy. These theories equip the strategist with knowledge of the environment he or she operates in. However, the concept of complexity is an important one to master, too.

The political and strategic world operates in a non-linear fashion which depends on interdependencies among actors and generates unpredictable effects. A strategist must be able to make practical use of fragmentary data and build internal, reasonably accurate, models capturing the big patterns in ongoing complex events all the while they anticipate future developments based on the fragments.⁹⁴

A strategist functions at the edge between order and chaos and have to be prepared to instill order from chaos as well as create chaos from order when that is most beneficial. It is operating in a condition that John Boyd named entropy, a condition where creation and novelty may emerge.⁹⁵ This is of course yet another part of strategy that is easier said than done and it requires a strategic mindset to cope with the complexity and marshaling context to one's own continuous advantage.

A STRATEGIC MINDSET

This section of Chapter 1 will discuss some of the intellectual requirements of strategists. First, it examines the role of history and education in strategy making. Second, it briefly discusses not so useful cognitive habits that can prevent a clearheaded analysis of situations at hand. Third, it explores how strategist can use the inductive method and abduction to make much from little.

There is a clear role for history in strategy, but there is also a danger resident in relying too heavily on history only for strategists. Clausewitz warns us that "To teach the art of war entirely by historical examples ... would be an achievement of the outmost

⁹⁴ Waldrop, Mitchell T. *Complexity: The Emerging Science at the Edge of Order and Chaos*, 253.

⁹⁵ Bousquet, Antoine. *The Scientific Way of Warfare: Order and Chaos on the Battlefields of Modernity*, 190.

value; but it would be more than the work of a life time: anyone set out to do it would first have to equip himself with a thorough personal experience of war.”⁹⁶ His intention of creating a theory from the close study of historical battles and wars was for educational purposes only. What Clausewitz in effect warns us about is an overreliance on historical analogies in practical application of strategy.

American political scientist Yuen Foong Khong defines analogies as cognitive devices that help policymakers take stock of an emerging situation. He states that analogies perform six diagnostic functions to decision makers. “Analogies (1) help define the nature of the situation confronting the policy maker, (2) help assess the stakes, and (3) provide prescriptions. They help evaluating alternative options by (4) predicting their chances of success, (5) evaluating their moral rightness, and (6) warning about dangers associated with the options.”⁹⁷

In Khong’s view, decision makers do not use analogies well. He asserts that decision makers often use inappropriate analogues that mislead because they emphasize superficial and irrelevant parallels. Psychological theories suggest that there often are systematic cognitive biases involved in the use of analogies, which primarily focus on the similarities between situations to the detriment of the differences.⁹⁸ Other investigations analyzing decision making, identify additional dangers with the psychological predispositions of decision makers and the tendency of the predispositions to reinforce existing biases.

American psychologist Irving L. Janis identified the risk of stereotyping opponents and the associated risks of misconception of their intent.⁹⁹ It can lead to misunderstanding the decision calculus of the other side and to an underestimation of the opponent. Jervis writes that because of psychological predispositions, the human mind strive to accommodate new information into existing schemas rather than questioning the schema itself. The situation changes when discrepant information arrives in large batches

⁹⁶ Clausewitz, Carl von. *On War*, 174.

⁹⁷ Khong, Yuen Foong. *Analogies at War: Korea, Munich, Dien Bien Phu and the Vietnam Decisions of 1965*, 10.

⁹⁸ Khong, Yuen Foong. *Analogies at War: Korea, Munich, Dien Bien Phu and the Vietnam Decisions of 1965*, 14.

⁹⁹ Janis, Irving L. *Groupthink*, 58-59.

rather than coming in gradually.¹⁰⁰ By using different theories from the social sciences, some of these dangers can be avoided because they provide a diversity of perspectives on the situation at hand. It makes it easier to thoroughly understand the actors involved in a future or ongoing situation.

In essence, this means that a strategist better be well equipped to operate in an inductive cognitive model. A comprehensive education in strategic matters equip the strategist with a theoretical, deductive, foundation built on historical studies, with which he or she must be able to perform an intellectual somersault in order translate the theoretical knowledge into useful practical application, where the outright inductive mode of operations prevails.

In a world characterized by high degrees of complexity, information is oftentimes imperfect. At times the strategist will experience such an abundance of data that it is difficult to categorize it and convert it to understanding. In other instance, information is scarce and fragmented.

British political scientist David J. Lonsdale makes the distinction between knowledge of capability and knowledge about intent.¹⁰¹ Understanding the intention of other actors is inherently difficult.

However, Israeli military historian Martin van Creveld advises that a certain amount of confusion is inevitable and that the confusion in itself is not inconsistent with good results.¹⁰² Thus, in terms of actual knowledge and not just information, the trick is for the strategist to make much from little, in accordance with the fine tradition of inductive reasoning.

¹⁰⁰ Jervis, Robert. *Perception and Misperception in International Politics*, 308.

¹⁰¹ Lonsdale, David J. *The Nature of War in the Information Age: A Clausewitzian Future*, 210.

¹⁰² Van Creveld, Martin. *Command In War* , 271.

CONCLUSION

Chapter 2 undertook a journey to properly explain the salient characters of strategy. The first section defined grand strategy as the marshaling of context for continuous advantage, in order to reinforce desired changes whilst mitigating unwanted changes. This definition set the stage for the rest of the chapter, which further explained the elements that together builds this particular definition of grand strategy. Therefore, the second section began with an exploration of the similarities and differences in two related concepts – grand strategy and national security strategy. It concluded that the two types of strategies are closely linked but the concepts are divided in their purpose and character.

Grand strategy is both an umbrella term and at the same time as it signifies strategy at the national level in operation under specific purposes. It can thus be the practical application of national security strategy in a certain situation. A national security strategy on the other hand, is long-term and anticipatory. It connects the visions of the state and its long-term goals with available means and above all, it develops and describes ways to reinforce desired change while mitigating unwanted change.

The third section of Chapter 2 explained the concept of marshaling context in support of strategy. In order to properly do that, it began with a definition of the meaning of context. It took a close look at how the international system works from different perspectives and how complex relationships in an essentially open ended system conspire to complicate grand strategy.

Section four studied the environment in which grand strategy operates. It examined the question of how is it possible to make sense of a world defined by complex, contingent and dynamic interrelationships between multitudes of different units. The fifth and final section of this chapter studied the demands that marshaling context for continuous advantage in a complex environment places on the strategist. It especially analyzed the cognitive functions of a strategic mindset and warns of the dangers inherent in over relying on historical analogies on order to diagnose a particular situation.

The thesis has fused traditional strategic theory with theories derived from political science. The thesis concludes that seeking continuous advantage is one of the fundamental purposes of strategy. Strategy can only do so by manipulating boundaries traditionally confining action. This requires great care, built on thorough understanding of the enemy and one self as stated by Sun Tzu.¹⁰³

However, this is easier said than done because both one's own state and the enemy consist of several layers. There are the elite running the international agenda and there are also different groupings within society that make up the character of a particular state. Furthermore, neutral states are watching and will respond to intentions declared and actions taken by the belligerents.

The environment is highly complex and dynamic, a reality that makes prediction and anticipation much more difficult. Thus, strategist must be able to make practical use of fragmentary data and build internal, reasonably accurate, models capturing the big patterns in ongoing events all the while they anticipate future developments based on the fragments.¹⁰⁴

A strategist functions at the edge between order and chaos and have to be prepared to instill order from chaos as well as create chaos from order when that is most beneficial. This is operating in a condition that John Boyd named entropy, a condition where creation and novelty may emerge.¹⁰⁵ Inferring from the particular to the universal is of course an inductive approach with limits.

British Major General J. F. C. Fuller concludes through reading French positivist Comte that the only way to construct understanding rationally is to think first inductively and then deductively.¹⁰⁶ How much general knowledge can be derived from small bits of information is dependent on previous knowledge, imagination and creativity on the part of the strategist. This is of course yet another part of strategy that is easier said than done.

¹⁰³ Griffith, Samuel B. *Sun Tzu: The Illustrated Art of War*, 205.

¹⁰⁴ Waldrop, Mitchell T. *Complexity: The Emerging Science at the Edge of Order and Chaos*, 253.

¹⁰⁵ Bousquet, Antoine. *The Scientific Way of Warfare: Order and Chaos on the Battlefields of Modernity*, 190.

¹⁰⁶ Fuller, J. F. C. *The Foundation of the Science of War*, 42.

The next chapter will leave the subject of grand strategy and focus on global trends. Global trends are those underlying patterns of change that will have great impact on the future. A strategy requires a map of the future in order to anticipate appropriate actions. The global trends are, for reasons discussed in Chapter 3, an appropriate instrument to guide grand strategy and national security development.

Chapter 3

UNDERSTANDING GLOBAL TRENDS - NAVIGATING THE COMPLEXITY

The purpose of this chapter is to draw the map of the future, upon which a national security strategy must rest. It provides the vital context to the analysis. Since it is the responsibility of the strategist to marshal the context for his or her nation's continuous advantage, accurate knowledge of the context is of course at a premium.

An important part of the context is the global environment of the national security strategy. This chapter thus focuses on the context outside of the territorial boundaries of the state. The present chapter provides a basic understanding and methodology for how the future may be anticipated and in later sections, specific information about the global trends and formative forces that are at play.

The internal context is equally relevant to national security strategy. State goals set the objectives and describe the desired future, which in turn drive the ways and means of the strategy. National interests should originate from the state goals and be in concert with the national core values of its society.

While state goals and national core values are continuous and extend across centuries if not millennia, national interests are, in this paper, their manifestation in unique situations. National interests are so important that most states do not willingly want to compromise them.¹ National interests in this context are external in character, meaning that they describe relations between sovereign states and other relevant actors in the international system.² Chapter 4 examines the internal context in terms of state goals,

¹ Drew, Dennis M. and Snow, Donald M. *Making Twenty-First Century Strategy: An Introduction to Modern National Security Processes and Problems*, 32.

² Drew, Dennis M. and Snow, Donald M. *Making Twenty-First Century Strategy: An Introduction to Modern National Security Processes and Problems*, 33.

national core values, and national interests. Lacking proper knowledge of external and internal context, the strategist cannot make informed decisions.

The long-term perspective is an integral part of the analysis behind a national security strategy. The role of the national security strategy is to guide grand strategic and military strategic decisions in each particular situation that confronts states in the international environment. In order to do that, there is a need to understand clearly the driving forces behind strategy and have a clear notion of what the particular state's long-term goals are. The strategy must be long term in order to avoid economic and social disruption caused by rapid and unforeseen domestic or international changes.

Another important aspect of a national security strategy is that it must be robust in the sense that the strategy must enable the state to adapt in a timely, efficient and effective manner in the face of a constantly changing environment.³ Thus, it is important for all states to have adequate and relevant insight into the future. However, as Danish physicist Niles Bohr persuasively expressed it, "Prediction is very difficult, especially about the future".⁴

In strategy, prediction is too strong a word. Prediction sets high requirements for the precision and accuracy of divining the future. Because of the complexity involved in strategy, anticipation is a better word. Anticipation exerts lesser demands on precision and accuracy in foretelling the future and is more in concert with the conditions relevant to strategists.

Strategic anticipation concerns the context within which states make strategic decisions about the future. As established earlier, a good strategy must be long-term and consequently, its formulation requires a thorough understanding of what the future holds. Since international and domestic environments are both linked and dynamic, it is not possible to devise a detailed, long-term strategy as a panacea to all circumstances. The

³ Heijden, Kees Van Der. *Scenarios: The Art of Strategic Conversation*, 290

⁴ Bendjelid, Karim and Jacques-A Romand,. "Fluid Responsiveness in Mechanically Ventilated Patients: A Review of Indices Used in Intensive Care," 133. <http://resources.metapress.com/pdf-preview.axd?code=gd1ne997g1lu3p7d&size=largest>

present and the future exist in an era when change will, in all likelihood, eclipse continuity.⁵

The challenge is to find a method of prediction that is concrete and certain enough for the requirements of strategy making, but not so confined that it lock in patterns of thinking and strategic responses in the national security strategy and by doing that, deprive the statesman and the strategist of required flexibility when they exercise grand strategy in a particular situation.

There are generally two different methods upon which a prediction of the future can be reasonably well based. The two methods are scenarios and global trends. This chapter argues that a strategy based on the recognition and understanding of fundamental long-term trends can incorporate and retain a vast amount of flexibility that lends it to constant adaption and calibration as a response to un-anticipated occurrences and yet be specific enough to make it useful. Global trends meet this requirement.

MAKING SENSE OF THE WORLD

The best method for making sense of the world projected into the future is by identifying and properly understanding global trends. The other method is to develop scenarios that describe alternative futures. While scenarios require subjective inputs from an array of players, the analysis of global trends is an objective identification of fundamental and gradual processes already in place.

The other benefit of relying on global trends is that global trends avoid the vast amount of uncertainty that is the byproduct of rapidly changing times. Uncertainty is not a recent phenomenon in regards to world developments. French philosopher Paul Valéry observed in 1932 the contradiction between the knowledge produced by scientific progress and the massive uncertainty that coexists. Valéry famously wrote that “Never has humanity combined so much power with so much disorder, so much anxiety with so

⁵ National Intelligence Council. Global Trends 2025: A Transformed World, 3.

many playthings, so much knowledge with so much uncertainty”.⁶ The passage of time has only made his astute observation more relevant.

The following paragraphs first begin with an explanation of what global trends are and why they are important. Second, they compare and contrast the advantages and disadvantages of global trends and scenario planning. Third, it disassembles the concept of global trends and examines the constituting elements of global trends.

Global trends build on a set of variables that have disproportionate influence on the future. Former Deputy Director of US National Intelligence for Analysis and Chairman of the US National Intelligence Council, C. Thomas Fingar observed that “...a small number of variables that we judge probably will have a disproportionate influence on future events and possibilities, the study seeks to help readers to recognize signposts indicating where events are headed and to identify opportunities for policy intervention to change or lock in the trajectories of specific developments.”⁷ This way of conceptualizing the future is highly systemic in character and it is an assertion that most states on earth will have to respond to these factors.

The variables that Fingar identifies interact and combine to create “long-wave themes and developments that unite the past, the present and the future.”⁸ British economist John Maynard Keynes recognized that history is shaped by deep forces at play rather than individual decisions taken by statesmen. Keynes wrote as a critique of the Versailles Treaty after WWI that “The great events of history are often due to secular changes in the growth of population and other fundamental economic causes, which, escaping by their gradual character the notice of contemporary observers, are attributed to the follies of statesmen or the fanaticism of the atheist”.⁹

The illusive objective for the strategist is to find the slow, impalpable and imponderable movements not only at the present, but also for the future. Historians have a significant advantage compared to the strategists. They can regard an event with

⁶ Schwartz, Peter. *The Art of the Long View*, 1.

⁷ US National Intelligence Council. *Global Trends 2025: A Transformed World*, first page in foreword.

⁸ Ministry of Defence. *The DCDC Global Strategic Trends Programme 2007-2036*, v.

⁹ John Maynard Keynes, *The Economic Consequences of the Peace*, 211-216.

hindsight and intimate knowledge of alternatives not obvious to decision makers at the time. Strategists must make do with information available at the time and they do not have the benefit of properly placing events within their context.

What strategist must do is to look for the deep forces and the variables that will combine to shape the future and not become fascinated by and too focused on current events that are symptoms rather than causes of change. British historian Arnold J. Toynbee warns that “The things that make good headlines attract our attention because they are on the surface of the stream of life, and they distract our attention from the slower, impalpable, imponderable movements that, in the end, make history, and it is they that stand out huge in retrospect, when the sensational passing events have dwindled, in perspective, to their true proportions.”¹⁰

Since the level of exact knowledge drops exponentially with the stretch of the time span, studying basic, global trends is the preferred method to limit the number of unknowns and thus the amount of assumptions that anticipation of the future otherwise requires. In addition, strategy development does not necessitate a high level of detail in the forecast.

It is much more important to capture accurately the foundational forces the strategy will confront. The strategy provides long-term objectives and a framework for action, wherein political flexibility and room for maneuver must exist. Strategic trends best capture Keynes and Toynbee’s advice to identify slow, impalpable and imponderable movements that invokes patterns of change within delineated sectors, and leading to overarching effects and ruptures. Because of the dynamics between different trends, the trends change systemic behavior both within and outside its sector.

It is thus those variables that will have disproportionately high impact on the future, and that combine into the deep forces of global trends, that strategist should look out for. However, another method of anticipating the future is scenario planning. The following paragraphs contain a brief contrast and comparison among global trends and scenario planning.

¹⁰ Toynbee, Arnold J. *Civilization on Trial*, 213.

Scenario planning is another method of capturing the future. Scenarios are often built as different types of future development, grounded in assumptions about actor specific behavior. The latter is the significant distinguisher between the scenario and trend method. A trend analysis does not require assumptions about specific actors and their intents and actions. The analysis takes place at the systemic level and the basic assumption in this case is that all relevant actors are affected in one way or another by the trends. Their reactions to the trends are not included in the analysis. The assumption is that all actors will have to respond to the trends but their specific reaction is deliberately excluded. Their responses are not irrelevant but belong to the sphere of scenarios and applied grand strategy.

However, a benefit of scenario planning is that scenarios can explore the range of outcomes within every global trend. They should consider intent and potential responses of other states to determine how robust and flexible the national security strategy really is. Used this way, scenarios test and extend the imagination of the strategist by considering the actor level of analysis and how the responses may interact.

However, it is important that the scenarios are loyal to the trends and not devised out of the blue with no strategic rationale forming the backbone behind individual decisions. This way, the planning underpinning a national security strategy is coherent and transparent to other stakeholders. Additionally, changes to the future or the national security strategy can be controlled, by adjusting one parameter at a time.

With global trends and scenario planning compared and contrasted, the next subject is to disaggregate the concept of global trends into their constituting elements. It is argued that global trends are really patterns of change, formed by a set of drivers and causing certain effects. This concept is used the UK Ministry of Defence in their *The DCDC Global Strategic Trends Programme 2007-2036*.¹¹ Their model constitutes the basic framework for analyzing the trends. Figure 1 demonstrates this concept.

¹¹ Ministry of Defence. *The DCDC Global Strategic Trends Programme 2007-2036*.



Figure 1. Global trends, drivers and effects.

Author's original artwork.

Each trend encompasses much uncertainty. The uncertainty characterizing the trends comes from at least three main sources. The first source is that the drivers have the potential to suddenly change in character and because two or more trends can reinforce or cancel each other out in their dynamic and complex relationship.

The second source of uncertainty comes from the fact that different actors respond independently to the trends and therefore alter the trends and their consequences to varying degrees. Traditionally, the responses belong to the state's political sphere of influence but since the end of the Second World War, other actors such as large corporations, media, and terrorist organizations etc. react to the trends and add uncertainty to a complex and often chaotic domestic dynamic.

The third category of uncertainty is sudden shocks or ruptures.¹² These shocks and ruptures are likely known dangers, yet prove very difficult to plan for. Examples of

¹² Ministry of Defence. *The DCDC Global Strategic Trends Programme 2007-2036*, xii.

the latter would be a severe meteor strike, a sudden outbreak of a highly contagious disease like the black plague pandemic during the fourteenth century or an extremely large volcano outburst that could change the global weather system.¹³ These three types of uncertainties are important to the analysis and can be of further use in scenario testing.

The majority of the global trends facts originate from trend analysis projects in the UK and in the USA. In the UK, the Development, Concepts and Doctrine Center within the Ministry of Defence produced the *DCDC Global Strategic Trends Programme 2007-2036* in 2007.¹⁴ In the USA, the National Intelligence Council has the equivalent process in place and it produced the *Global Trends 2025: A Transformed World*, in 2008.¹⁵ These two papers are rich in both method and substance, which has informed this chapter tremendously. Four distinct global trends emerged from the research: climate change, globalization, energy transformation, and demographic change.

The *DCDC Global Strategic Trends Programme 2007-2036* identifies three key findings, which are climate change, globalization, and global inequality. Furthermore, it recognizes four themes, which are population and resources, identity and interest, governance and order, and knowledge and innovation.

The US equivalent is somewhat different in that it is organized into seven alternative futures. They are: the globalizing economy, demographics discord, the new players, scarcity in the midst of plenty, growing potential for conflict, will the international system be up to the challenges and power-sharing in a multipolar world.

Several of the trends observed by the two studies are trends about actors and not underlying events. They were discounted because they belong more to scenario planning than global trends that are intended to be disconnected from the actors and focus on the context. These criteria disqualified the subjects of identity and interest, new player, growing potential for conflict, the international systems and its ability to handle coming challenges, and power-sharing in a multipolar world. Furthermore, knowledge and innovation were made a subset of globalization because technology underpins the

¹³ Ministry of Defence. *The DCDC Global Strategic Trends Programme 2007-2036*, xii-xiii.

¹⁴ Ministry of Defence. *The DCDC Global Strategic Trends Programme 2007-2036*.

¹⁵ National Intelligence Council. *Global Trends 2025: A Transformed World*.

globalization trend. Global inequality has components both in demographic change and climate change. Growing potential for conflict is partly concerned with energy scarcity, as is population and resources. The energy elements in each of these were combined into energy transformation for clarity. The selection process left climate change, globalization, energy transformation, and demographic change.

The examination of the trends follows a pattern where the trend is first described, followed by its drivers and effects. The first trend to investigate is climate change.

CLIMATE CHANGE

There is compelling evidence that climate change is now unequivocal, with rising temperatures in the air and in the oceans, snow and ice melting, and rising global sea levels.¹⁶ The temperature on earth by 2100 will most likely rise between two and five degrees Celsius and possibly even higher.¹⁷

There is convincing scientific evidence to suggest that human activity in the transportation and energy areas contribute strongly to this trend, by substantially increasing the levels of greenhouse gases, such as carbon dioxide or methane, in the atmosphere. This premise rests firmly on the laws of physics and chemistry. The Intergovernmental Panel on Climate Change (IPCC) links a higher concentration of greenhouse gases to an increase in atmospheric and oceanic temperatures.¹⁸

On the other hand, scientists have shown that other drivers were in operation over the course of Earth's history. Changes in the Earth's orbit and in solar activity accounted in previous eras for variations in the climate, as have meteor strikes and volcanic eruptions.¹⁹ Whichever drivers contribute the most, emissions from human activities are the only driver that we can affect. The drivers apparently work in concert and create an

¹⁶ Intergovernmental Panel on Climate Change. *IPCC Fourth Assessment Report: Climate Change 2007*.

¹⁷ HM Treasury. *Stern Review on the Economics of Climate Change*, 2.

¹⁸ Intergovernmental Panel on Climate Change. *IPCC Fourth Assessment Report: Climate Change 2007*, 5.

¹⁹ United States Environmental Protection Agency. *Climate Change*.

overarching pattern of climate change. These trend drivers yield several potential consequences to planet Earth and its inhabitants.

The British *Stern Review on the Economics of Climate Change* from HM Treasury indicates that the potential consequences for the planet Earth are overwhelmingly negative.²⁰ Reports claim that global warming likely intensifies water scarcity problems in Mediterranean-like climates in both hemispheres. This in turn leads to loss of arable land, lack of water to drink in certain areas, and may cause hygiene problems. However, increasing amounts of rainfall will occur on the extreme northern and southern parts of these hemispheres. Warmer oceans likely lead to more frequent and heavier storms.

The most dangerous development according to one report is that an un-even distribution of increasing temperatures leads to disruptions of atmospheric and oceanographic circulation patterns and to the melting of the polar ice caps. Melting of the ice caps will generate rising sea levels with losses of land areas as a result. It is not farfetched to imagine that losses of arable and populated land areas due to rising temperatures will cause large parts of affected state's population to migrate north or south. To the north is perhaps more probable because of economic reasons.

Some states may ironically benefit from the effects of climate change, at least in the short run, because, the effects will not disperse equally around the globe. Russia and Canada are examples of countries where vast areas potentially can become more inhabitable as their agricultural land areas open up due to warmer temperatures.²¹ This will have the added benefit of creating easier access to potential natural resources. For northern tier countries, another advantage are that the Northern Passage will open up, sharply cutting sea transportation times and costs for a major part of the shipping between the North Atlantic and the Pacific Ocean.²²

²⁰ HM Treasury. *Stern Review on the Economics of Climate Change*, 2.

²¹ National Intelligence Council. *Global Trends 2025: A Transformed World*, 52.

²² Granholm, Niclas. "Arktis – ny utmaning for Sverige (The Arctic – A New Challenge for Sweden)". In Granholm, Niclas, Malminen, Johannes and Rydqvist, Johan (red.), *Strategisk utblick 2009: Sakerhetspolitisk Forsranning? (Strategic Outlook 2009: Security political White Water Rafting?)*, 24.

However, rising ocean levels and atmospheric changes will likely bring negative effects to northern tier states too. The un-equal distribution of effects around the planet is a symptomatic of the other trends as well. Every trend presents certain regions predominately with opportunities while other regions will experience a much higher degree of difficult threats. This holds true for the next global trend, globalization, as well.

GLOBALIZATION

Globalization is a global trend that leads to increasing interconnectivity between people from all over the world, while providing social and economic effects. The social dimension encompasses the exchange of ideas and culture between different regions.²³ Furthermore, globalization brings with it the concept of a world market for goods, labor, and services along with integrated financial systems.²⁴ Globalization integrates supply and demand from different regions of the world. While it is easy to describe what Globalization is, it is more difficult to identify the drivers.

One of the major drivers behind globalization is technology and specifically different types of communications technologies²⁵. The trend also includes development in means of transportation. It is far easier to travel to most regions of the world than it used to be and much of the communication in integrated financial systems today occurs automatically over great distances without people travelling. To an extent, technological invention is not only an enabler but also a driver.

Technological progress seems driven by its own logic and humanity appears willing to find new ways to utilize the possibilities these new technologies offer. Furthermore, liberal market economies have always been on the lookout for new markets

²³ Freedman, Thomas L. *The World is Flat: A Brief History of the Twenty-First Century*, 478.

²⁴ Ministry of Defence. *The DCDC Global Strategic Trends Programme 2007-2036*, 7.

²⁵ Hanson, Elisabeth C. *The Information Revolution and World Politics*, 3.

and suppliers of resources.²⁶ Recent technological inventions and applications have only reinforced this behavior and accelerated its potential.²⁷

Communications technologies have moreover enabled individuals by providing readily available global information. Culture and ideas tend to spread because people are inquisitive and the information is easy to access. For example, Iranian protesters in 2009-2010 made extensive use of Twitter, Facebook, and Youtube, to organize protests and to spread information of what went on in Teheran.²⁸ With globalized information technology, individuals suddenly have unheard of capabilities.

Furthermore, globalization has made possible an unprecedented interconnectedness with information technology, between states as well as within states. Most of the domestic and international finance markets depend highly on the functionality of information technology. This dependency gave rise to cyber-attacks, or computer network attacks, that affect decision makers' cognitive processes, the informational content in subsystems, the information systems themselves or infrastructure and equipment controlled through information networks.²⁹

Globalization encompasses tremendous positive economic effects. Since the 1950's, the world has experienced an enormous transfer of wealth from West to East. When governments in the Middle East nationalized oil companies, they acquired a larger share of oil revenues, while a growing portion of the West's manufacturing industry moved to countries in Asia, notably, Japan, Taiwan, and South Korea.

The trend intensified and in the 2000's as the economic and financial shifts from West to East increased to levels unprecedented in modern history.³⁰ This shift has lifted approximately 135 million people out of poverty between 1999 and 2004. The World

²⁶ Freedman, Thomas L. *The World is Flat: A Brief History of the Twenty-First Century*, 9.

²⁷ Skoudis, Edward. "Evolutionary Trends in Cyberspace", In Kramer, Franklin D. Starr, Stuart H. and Wentz, Larry K. *Cyberwar and National Security*, 169.

²⁸ Edgar, Johan, Hjerten, Micic, Mira and Wiman, Eric. *Blodiga upplopp pa Teherans gator (Bloody Protest on the Streets of Teheran)*.

²⁹ Wilson, Clay. "Cyber Crime". In Kramer, Franklin D., Starr, Stuart H. and Wentz, Larry K. *Cyberwar and National Security*, 433.

³⁰ National Intelligence Council. *Global Trends 2025: A Transformed World*, 7.

Bank expects the number of people living in the middle class to rise from 440 million to 1.2 billion in the coming decades.³¹

The transfer of wealth from West to East also depends largely on the relocation of production means because of lower labor costs. As long as labor is cheaper in the East, Western states will depend on their technical innovation skills to continue to be relevant in the globalized economy. However, this demand and supply situation depends on access to relatively skilled and low-cost labor and on comparatively low transportation costs. If these two premises change, it is perhaps valid to speculate that production may relocate to Africa, or even revert back to Western countries.

However, the effects caused by a globalized economy can be negative to some parts of the world. Several countries in the Third World, especially in Sub-Saharan Africa, probably find it difficult to acquire sufficient resources to access and harvest the benefits from the globalization trend. The *The DCDC Global Strategic Trends Programme 2007-2036* concludes that the gap between rich and poor likely will increase and they point especially to significant part in China and India, as well as Sub-Saharan Africa, where poverty is likely to remain a significant problem.³²

This tendency of exclusion and inequality will create tensions among rich and poor societies. With globalized communications, people living in parts of the world that do not benefit from current economic developments are much more aware of the inequality compared to before. In part, this may explain the rise of cross-national terrorism where perceptions of inequality likely play a part in the recruitment and popular support of these terrorist organizations.³³ Global communications brings global awareness, which in turn puts a spotlight on inequalities that provide insurgents and terrorists with cause to take up violent activities.³⁴

Finally, global communication technologies also help enable non-state organizations to organize and operate effectively. Since developments in

³¹ National Intelligence Council. *Global Trends 2025: A Transformed World*, 8.

³² Ministry of Defence. *The DCDC Global Strategic Trends Programme 2007-2036*, 3.

³³ Ministry of Defence. *The DCDC Global Strategic Trends Programme 2007-2036*, 3.

³⁴ For a discussion about the importance of a cause, see Galula, David. *Counterinsurgency Warfare: Theory and Practice*, 15.

communications technology enable non-state actors, it is only reasonable to assume that they will be further empowered as time goes by. To an extent, this resembles the situation a few centuries ago, before the nation states monopolized violence, and in effect became the only relevant type of actor in the international system.

One enabler of globalization discussed earlier, low transportation costs, depends to a high degree on access to low-cost energy. This trend is the next object of scrutiny.

ENERGY TRANSFORMATION

The third global trend concerns energy transformation away from fossil fuel as the main source of energy to other more sustainable sources. This trend mainly affects the transportation sector in the Western world, while affecting the entire energy sector in many developing countries. Interestingly, one study predicts that in 2025, the world is in the middle of this energy transformation phase.³⁵ Furthermore, inadequate supply of oil and natural gas can bring about changes in the global distribution of power.

The driver of this trend is quite evidently that modern societies consume oil and natural gas at a far higher rate than the planet can produce it. The Western world has consumed vast amounts of this type of energy from the early 20th Century and their consumption has reduced the residual levels to such low quantities that scientists predict that output will be a fraction of current levels in 2050.³⁶

While Western consumption has increased modestly over the last decades, except in the USA, the consumption rates of some developing countries have grown exponentially. Countries with rapidly developing economies, such as Brazil, Russia, India, and China (BRIC), are experiencing great increases in their demand for oil and natural gas. Thus, roughly in the same period as oil production culminates, the worldwide demand for this commodity keeps growing.³⁷

³⁵ National Intelligence Council. *Global Trends 2025: A Transformed World*, 41.

³⁶ Gardner, Gary and Prugh, Thomas. *2008 State of the World: Innovations for a Sustainable Economy*, 78.

³⁷ Deutch, John, Schlesinger, James R. and Victor, David G. "National Security Consequences of U.S. Oil Dependency", 375.

The problem confronting fossil fuel producers is quite different from that of oil importers. While the oil producers may experience a significant increase in fossil fuel related incomes when this commodity becomes increasingly scarce, they need to plan ahead for alternative sources of income. The fossil fuel producers need to adjust their economies in time, away from dependence on a singular source of national energy and income. Iran is one such example where a big oil exporter gradually changes from oil to natural gas as main source of energy.³⁸

Fossil fuel exporting states have according to assessments a limited time window within which they can diversify the incomes to their economies. They experienced a substantial windfall due to export incomes in the last twenty to thirty years.³⁹ That raises the expectation of the population for shares in the national oil and gas revenue and may lead to domestic turbulence once this revenue decrease, if these states do not transform their own economies.⁴⁰

A profound transformation of the national economy is a process that takes a long time because it most likely requires changes in the educational system, a new legal foundation for the domestic financial market, a change of behavior on the actors involved, and funds to support the changes. In accordance with the timetable above, current oil exporters may only have about 15 years to complete this transition since most of them, except Russia and Canada, will not benefit from global warming and the potential for new oil and gas findings in previously unexploited areas of the globe.

The large consumers of fossil fuels face a different problem compared to the oil producers. They must adapt and likely diversify their energy sources. Especially large oil importers should commit to find new sources for their liquid fuel dependency in a timely fashion. If they wait too long, the transformation between energy sources can

³⁸ Luft, Gal. "Iran and Brazil Can Do It. So Can We". In Air Command and Staff College. *International Security Studies: AY10 Coursebook*, 407.

³⁹ Korin, Anne. "Rising Oil Prices, Declining National Security". In Air Command and Staff College. *International Security Studies: AY10 Coursebook*, 417.

⁴⁰ National Intelligence Council. *Global Trends 2025: A Transformed World*, 14.

become too abrupt and essentially place their own economies, as well as the global economy, at risk.⁴¹

Some argue that a too rapid transition to new energy sources could jeopardize economic stability in oil dependent states, hence the importance of a controlled transition.⁴² However, given that the long lead-time to develop new technologies roughly coincides with the 2025-2035 period when many scientists predict that demand will outweigh supply, the time is arguably already here to begin seriously to develop new energy technologies. Studies indicate that it takes an average of 25 years for a new production technology to mature and spread widely in the energy sector.⁴³ Ironically, global warming may contribute to new, substantial oil findings in the Arctic areas and thus postpone the liquid fuel crisis for oil dependent states.

In conclusion, inadequate supply of oil and natural gas can bring about changes in the global power distribution. Some areas that are large exporters of fossil fuels can become almost irrelevant to global geostrategy.

The former exporters lose their generations old energy leverage over the West. Oil and natural gas exporters may experience possibilities to increase their influence on world events to a considerable extent in the relatively short time frame before oil and gas runs out totally or before the current oil and gas importers have switched to other sources of energy. This may tempt some states to coerce other states to comply with demands that they would not otherwise agree or commit to.⁴⁴

Another unfortunate consequence of the changing supply and demand balance is that some states may contemplate using the military instrument of power to ensure uninterrupted flows of energy.⁴⁵ With the consequences of energy transformation

⁴¹ Deutch, John, James R. Schlesinger and David G Victor. "National Security Consequences of U.S. Oil Dependency". In Air Command and Staff College. *International Security Studies: AY10 Coursebook*, 370.

⁴² Hirsch, Robert L. "National The Inevitable Peaking of World Oil Production". In Air Command and Staff College. *International Security Studies: AY10 Coursebook*, 399.

⁴³ National Intelligence Council. *Global Trends 2025: A Transformed World*, 44.

⁴⁴ Deutch, John, James R. Schlesinger and David G Victor. "National Security Consequences of U.S. Oil Dependency". In Air Command and Staff College. *International Security Studies: AY10 Coursebook*, 369.

⁴⁵ Ministry of Defence. *The DCDC Global Strategic Trends Programme 2007-2036*, 32.

established, what does research have to say about the fourth foundational trend, population growth?

GLOBAL DEMOGRAPHIC CHANGES

Global demographical change is a trend that consists of the three different elements of population change: growth in sub-Saharan countries, aging in the West and Japan, and urbanization in third-world countries. Sources state that global population trends are changing from high mortality and fertility rates to low mortality and fertility rates.⁴⁶

To put the matter into perspective, between 1750 and 1950 the world population grew from one to three billion people. From 1950 to 2000, it expanded from three to more than six billion people.⁴⁷ However, because of declining fertility rates, the global population may begin to decline after 2100, if current trajectories remain intact.⁴⁸ The projected population growth up to 2100 mainly happens in India, China, and Africa. In 2050, the African continent may hold up to 2.3 billion people.⁴⁹ Still, the population trend includes more than population growth.

While Third World countries experience large youth bulges as described above, the industrialized countries experience the opposite. The populations in developed countries age at the same time as comparatively low fertility rates cause the work force to contract.⁵⁰ While the US is in the same basic situation, mounting immigration, predominately from Mexico, may prevent the population from shrinking.

The situation is similar in Western Europe where immigrants from Africa or parts of Asia potentially replenish rapidly aging human resources. Research also reveals that the question is more of a concern for Italy, East European countries, Japan, Russia, and

⁴⁶ Glenn, Jerome C. and Gordon, Theodore J. 2007 *State of the Future*, 16.

⁴⁷ Friedman, George. *The Next 100 Years: A Forecast for the 21st Century*, 53.

⁴⁸ Friedman, George. *The Next 100 Years: A Forecast for the 21st Century*, 53.

⁴⁹ Assadourian, Eric. *Vital Signs 2007-2008; The Trends that are Shaping Our Future*, 50

⁵⁰ National Intelligence Council. *Global Trends 2025: A Transformed World*, 21.

Ukraine where immigration is low and emigration already occurs.⁵¹ In addition, there is the third element of this population trend to consider - urbanization.

The source of global population growth are an increase in the number of women in child bearing age, increased birth rates and increased life expectancy.⁵² In the developed world, the population ages because life expectancy increases while fertility rates decline and this explains the regression of the population these parts of the world. There are different explanations for the difference in fertility rates between the undeveloped and the industrialized world. In less developed countries, children are economic assets from early on in age and later they are the enabler for their parents' retirement.

There are several reasons why the birth rates decline in the Western part of the world. One is as the complexity of the society increase, so does the needed level of education. Education is in most societies associated with expenses, which place a financial burden upon the family for a couple of decades. In addition, with increasing specialization, the children are less likely to contribute to the parent's economy or their retirement because they do not typically stay to work for their parents. Finally, long education tends to impel women into having children later in their life compared to women in less developed societies.⁵³

Rapid and sometimes uncontrolled urbanization is another result of demographic change. Urbanization is of course not a new trend because it has been going on for several centuries. However, predictions anticipate that by 2035, 60% of the world population will live in urban areas, which is an unprecedented level in the history of the planet. The urban expansion takes place at a rate that in some areas outpaces the capacity to integrate the settlers properly.⁵⁴

Research projects that the bulk of the population increase on our planet will occur in cities of the developing world. Urbanization in the developed world has largely come

⁵¹ National Intelligence Council. *Global Trends 2025: A Transformed World*, 21.

⁵² McKeown, Alice. *Vital Signs 2009: The Trends that are Shaping Our Future*, 83.

⁵³ Friedman, George. *The Next 100 Years: A Forecast for the 21st Century*, 54-58.

⁵⁴ Ministry of Defence. *The DCDC Global Strategic Trends Programme 2007-2036*, 9.

to a halt. Wars, failed markets or ecological breakdowns cause this kind of urbanization, because it compels people to move to urban areas in search of opportunities.⁵⁵

The effects of changing global demographic patterns are multiple. An increase in the total number of people on Earth leads to increased demands on resources. Unfortunately, most of the population increase takes place in areas that already lack resources, such as water, food, and/or infrastructure. These areas will also experience population shifts resulting in a large proportion of young adults.

Such a population imbalance has historically contributed to political violence and civil conflict.⁵⁶ A competition for scarce resources may also lead to conflict between and within countries.⁵⁷ On the other hand, a humanitarian crisis may develop even without conflict, depending on how fast the gap between resource demand and resource access arises. Migration will continue to flow from south to north. This causes almost opposite problems in the North.

An aging population and reductions in the work force jeopardize the economic foundations of many states, especially in Western Europe and Japan. Many of these states have built extensive welfare systems that require a large work force in order to be fiscally sustainable. The US is in a similar situation albeit for different reasons. The US is currently the highest indebted state in the world and relies on the expectation of its ability to produce continued economic growth for credibility.⁵⁸ Moreover, much of the USA's perceived global power rests either directly or indirectly (military expenditure) on its economic performance and it is currently deemed somewhat vulnerable to different economic and financial ruptures because of its position as the world's most indebted nation.⁵⁹

An extensive immigration of laborers, predominately from Mexico in the case of the US and from Africa in the case of Europe, may ameliorate the situation, but that

⁵⁵ Assadourian, Eric. *Vital Signs 2007-2008; The Trends that are Shaping Our Future*, 52.

⁵⁶ National Intelligence Council. *Global Trends 2025: A Transformed World*, 21.

⁵⁷ Ackerman, John. "Environmental Security: Evolution of a Paradigm". In Air Command and Staff College. *International Security Studies: AY10 Coursebook*, 220 and 223.

⁵⁸ Ministry of Defence. *The DCDC Global Strategic Trends Programme 2007-2036*, 30.

⁵⁹ Ministry of Defence. *The DCDC Global Strategic Trends Programme 2007-2036*, 28 and 30.

depends largely on how well these societies can integrate or assimilate the immigrants.⁶⁰ However, another, or perhaps complementary option, is for these states to encourage a higher birth rate through economic and political incentives. The downside is that the results could take up to a generation to materialize and reverse the current decline.⁶¹

Furthermore, shrinking populations in these countries can have global repercussions. The well-being of the global, interdependent markets, on which most developing states depend, can be in jeopardy since they are part of the Western order, established by Europe and the USA.⁶² It is difficult to predict the global consequences of failing economies in these states and in Japan, because it depends in part, on how ready emerging powers, i.e. BRIC countries, are to shoulder the mantle of economic growth. Globalization thus links the destiny of developing states to that of the industrialized states for the foreseeable future. This brings the analysis back to the Third World states and the last element of the global demographic change - ungoverned spaces.

Ungoverned spaces develop partly as a result of rapid urbanization, because rapid urbanization is likely to occur in areas where competition for resources is fierce. There is danger in that ungoverned spaces develop and create gaps where endemic criminal activity can flourish and spread.⁶³ Ungoverned spaces have proven to provide sanctuaries for organized crime, insurgency groups, and terrorist cells to recruit, organize, train, and equip, free from outside intervention. Sudan and its Darfur region is an example of an ungoverned space, where criminal activity has spread.⁶⁴

In summary, climate change, globalization, energy transformation, and global demographic change constitute foundational trends, each on their own right. Taken together, they also reveal a larger pattern.

⁶⁰ National Intelligence Council. *Global Trends 2025: A Transformed World*, 23-24.

⁶¹ National Intelligence Council. *Global Trends 2025: A Transformed World*, 21.

⁶² National Intelligence Council. *Global Trends 2025: A Transformed World*, 82.

⁶³ Ministry of Defence. *The DCDC Global Strategic Trends Programme 2007-2036*, 16.

⁶⁴ Hari, Daoud. *The Translator: A Tribesman's Memoir of Darfur*, 96.

TRENDS IN CONCLUSION

Climate change, globalization, energy transformation, and global demographic change occur in parallel and the dynamics that they create between them hardly lends itself to precise predictions. What is more, different political decisions, some in response to the challenges the trends present, give rise to an action, reaction, and counteraction patterns between different actors and this affects the drivers of the trends as well as their consequences.

However, one important conclusion is that the trends generate a set of multiple-stress zones where negative outcomes of the different trends converge and they are to a limited extent in northern South America, in Saharan and sub-Saharan Africa, the Middle East, in northern South Asia and in parts of China.⁶⁵ These are the regions where the negative impact of the different trends converge and bring multiple pressures that are difficult to cope with, even for stable governments. It is reasonable to expect these regions to require a high degree of humanitarian assistance, in addition to government support. Consequently, it is logical to expect that the probability for conflict will remain high in these regions.

This analysis rests on only a few variables but research reveals that they have the potential for a disproportionate effect on the future. The US National Intelligence Council (NIC) predicts that the next 15-20 years hold more change than continuity, in their *Global Trends 2025* report.⁶⁶ They go on to state that geopolitical alterations and changes in the international order increase the expectation of surprise, discontinuities, and shocks.⁶⁷

Moreover, the *Global Trends 2025* concluded that the next two decades are a great historical turning point where many factors converge. The report also cautions that historically, rapid change can lead to dangerous developments.⁶⁸ From a historical analysis, they provide insights that are useful to keep in mind: leaders and their ideas

⁶⁵ Ministry of Defence. *The DCDC Global Strategic Trends Programme 2007-2036*, 5.

⁶⁶ National Intelligence Council. *Global Trends 2025: A Transformed World*, 3.

⁶⁷ National Intelligence Council. *Global Trends 2025: A Transformed World*, 3.

⁶⁸ National Intelligence Council. *Global Trends 2025: A Transformed World*, 1.

have great impact on how the future develops, economic volatility is a major risk factor to stability, and global rivalries trigger discontinuities more than does technological change.⁶⁹

It is all too easy to focus on the risk that overwhelming change brings about and to forget that historically, change did not mean end of the world but it also brought major improvements. Certainly, changes brought negative consequences to some actors, while others prospered. Empires have come and gone, one type of influential actor substituted another, which sometimes brought personal disaster but in the grand scheme of things, humanity as a whole has prospered. This is so if one equates prosperity to high life expectancy, declining child deaths, higher material standards on average, a higher degree of personal freedom and more individual opportunities. These are good conditions emanating from continuous and gradual change and any national security strategy needs to address the opportunities and reinforce the drivers linked to this.

However, there are people who have benefitted very little from the progress that Western societies have experienced, partly because of inefficient national economies and poor economic policies.⁷⁰ Those excluded from progress or who actually suffered negative consequences as a result of progress in the Western world, largely become aware of this fact because of global communication technologies. Their awareness of the existing inequalities is a global challenge that needs addressing, for global stability depends on it. This may be the most important lesson to learn from the past and something that policy makers must consider when they define national interest.

Global trends are the indicators of the future to come. They are Toynbee's and Keynes' slow moving and almost invisible forces. The trends presented here are compiled from other sources devoted to research about trends. Because the analysis of trends embodies interpretations of the future, they are highly contestable. It is up to each strategist to determine what trends best constitutes a guiding handrail for the development of national security strategy.

⁶⁹ National Intelligence Council. *Global Trends 2025: A Transformed World*, 5.

⁷⁰ National Intelligence Council. *Global Trends 2025: A Transformed World*, 56.

However, even if the trends themselves are uncontroversial, their drivers and consequences are not. The global trends demonstrate the complexity of the strategic environment and how interconnected and nonlinear Toynbee's and Keynes's patterns operate. Complexity and interconnections between drivers lead to a highly dynamic environment, where the response of the actors takes the complexity and dynamics yet a step further. But this is where the strategist should excel.

The creative possibilities at the edge of chaos are tremendous. The strategist must be an adaptive agent that constantly interacts with the environment.⁷¹ It is also a living proof of a skill intrinsic to a good strategist: the ability to make much from little.

Through a thorough strategic and historical education, the strategist has acquired deductive knowledge that he must be able to cognitively accommodate with the largely inductive nature of his responsibility as a strategist. Of course, a good national security strategy incorporates much flexibility and retains ample room freedom of action that the strategist will need when applying the national security to a particular situation.

The environment presented in this chapter is only one part of the context. The next chapter provides an in-depth investigation on the domestic perspective of the strategist's task. That chapter provides the ends sought by policy, dictating the desired outcomes of the national security strategy as well as the constraints to his freedom of action set by national core values.

⁷¹ Waldrop, Mitchell M. *Complexity: The Emerging Science at the Edge of Order and Chaos*, 176.

Chapter 4

STATE GOALS, CORE VALUES AND NATIONAL INTEREST

This chapter introduces the goals common to most states, how they interact with national core values and how they translate into actionable national interests. In addition, it contains a discussion of whether a state wants to maintain the international systems the way it currently is or if the state wants to challenge and change the function of the existing system or perhaps change it entirely. The present chapter typifies a compass for states, that enables the creation and sustainment of a national consensus of what role that state plays in the world and why.

The compass is highly important because a strategy needs goals, values and interests that guide its trajectory as the strategy connects the past with the future. Furthermore, national core values form some of the boundaries that limit strategic choices. Awareness of state goals, national core values and national interests for a long term enable the creation and sustainment of a national consensus of what role the particular state plays in the world and why.

The essence of this chapter is that the national core values are the foundation of the Western civilization and it is these values that have permitted and enabled the Western way of life, and that have proven so conducive to economic prosperity. It argues that economic prosperity in turn has purchased an enduring relative security advantage for the West over centuries, if not millennia.

Chapter 4 thus presents the three state goals in a hierarchy and ties the state goals together with Western national core values. It concludes that the national core values and the Western way of life is the very foundation upon which a Western continuous advantage rests. The fundamental role of national core values and way of life establishes

boundaries and the lens for how strategist should determine national interests in light of the change brought about by global trends.

Chapter 4 provides the essential link between the map of the future, described through the global trends in Chapter 3, and the conceptual model for grand strategy and national security strategy explored in Chapter 5. State goals, national core values and national interest form the lens through which each particular state views and assess international change.

Figure 2 demonstrates that the state goals are at the center of strategy. They are surrounded by national core values that guide and limit national security strategy. Finally, national interests are in this construct at the periphery of the lens in that they are almost given for each situation, once state goals and national core values are determined.



Figure 2. State Goals, Core Values and National Interest.

Author's original artwork.

The first section of Chapter 4 begins with an exploration of three common state goals. These are security, prosperity and way of life.¹ The two first national goals, security and prosperity, are basic needs of all societies, and generally must be fulfilled to an adequate degree before a society is ready to assume other goals. The national goals constitute the destination of the journey.

The second section explores the concept of core values and how values influences national security strategy. The third goal, preserving or developing a desired way of life is highly contingent on the national core values. The core values constitute some of the boundaries of strategy, in that they inform customs, norms and rules for acceptable behavior.

The third section of Chapter 4 explores the concept of national interests. The argument being made is that the ultimate goals of the state determine its national interests. National interests are long-term as well as determined for every specific situation that arises. The national interests must be aligned with the ultimate goals of the state and its core values to be cogent and effective.

Finally, the fourth section departs from each state's relative situation and position in the international system. The section argues that a state that benefits from the current system strives for minimal change, i.e. status quo. Conversely, states that perceive themselves as being disadvantaged or hindered in the quest for their ultimate goals will challenge the existing system and strive to change it such that it becomes more advantageous for them.

Chapter 4 demonstrates that a viable national security strategy must consider internal factors, such as state goals, national core values and national interest which are no less complex than the external aspects. Chinese military philosopher Sun Tzu recognized that internal factors are just as important as the external. He wrote "Know the enemy, know yourself; your victory will never be endangered".² While specific national interests can change in conjunction with a swiftly developing situation, the argument

¹ George, Alexander and Robert Keohane. "The Concept of National Interests: Uses and Limitation" in George, Alexander, *Presidential Decisionmaking Foreign Policy*, 217-238.

² Griffith, Samuel B. *Sun Tzu: The Illustrated Art of War*, 205.

being made here is that state goals are constant over time. A state's national core values are suspended somewhere in between. States connect core values to the culture of the people through customs, norms and rules, and culture is a phenomenon that changes over time but slowly, over generations. However, it may be necessary to re-discover the core values and the goals of the state in times of great internal or external change. It may take time to re-calibrate the compass to yet again find the true north of the state's national compass.

ULTIMATE STATE GOALS

The fundamental argument of this section is that states ultimately have three basic goals that endure over time and across different types of political systems. The goals identified by Australian social scientist Hedley Bull are security, economic prosperity and way of life.³ Bull's recognition of state goals corresponds in general to American psychologist Abraham Maslow's characterization of a conceptualization he labeled "hierarchy of needs."⁴

Maslow's concept is based on the fact that humans are biological creatures and they have corresponding basic biological needs, such as satisfying hunger and thirst. The next level in Maslow's hierarchy contains demands that ensure the ability to satisfy continuously biological needs. Above all, the second level concerns security. Security means freedom from threats and the ability to muster resources for defense purposes. The need for resources, for biological survival and defense, introduces economic prosperity to the equation. Economy in its wider sense, including resources, is a prerequisite for the sustainment of human life. The other levels in Maslow's hierarchy of needs concern different aspects of self-realization.

The analogy that can be made from Maslow's hierarchy of needs is that states too have a hierarchy of goals. A basic capability for a state is the ability to feed its people, which concern the economic state goals. However, because of the anarchic nature of

³ Bull, Hedley. *The Anarchical Society: A Study of Order in World Politics*, 5.

⁴ Maslow, Abraham. "A Theory of Human Motivation", *Psychological Review* 50, 370-396.

international relations and the existence of threats, security is a pre-requisite to a stable economy. Finally, the third goal, way of life spans over several of Maslow's levels. In one sense, a certain way of life may be desired because it effectively generates security and economic prosperity. In another sense, a certain way of life is sought and maintained on spiritual grounds rather than material. Without a functioning economy and security, way of life becomes an irrelevant goal. Thus, states have a hierarchy of goals that in some ways correspond to the idea of a hierarchy of human needs. The succeeding paragraphs of this section explore the three different goals in more depth, beginning with security, followed by economic prosperity and way of life.

SECURITY

The section exploring security is organized by three distinct yet interrelated themes. The first theme discusses the internal and external ordering principles. It builds on Hobbes' insights on internal anarchy and how the sovereign was seen as a remedy to the uncertainty and insecurity that internal anarchy gave rise to.

The Westphalian state type is the social construct that responded to both internal and external anarchy. The sovereign removes internal anarchy through the social contract and its monopoly of violence. The Westphalian state also reduces external anarchy by formalizing governance on territorial principles. However, the Westphalian state construct has proven to be less unitary than perhaps originally intended.

The second theme picks up on Buzan's concept of disaggregating the state into three component parts. First, a state must have a physical base that broadly speaking consist of its territory and population. Second, a state must have institutions that govern the territory and through the legal system its population. Third, the population must share some idea of common belonging to lend legitimacy to the institutions governing the state.

This theme solves the tension seen in reality between the states and its society, where the interests of the state do not necessarily align with those of the society. In some extreme cases, the state actually turns its monopoly on violence on its own population. It

addresses some of the imperfections in the Westphalian state construct regarding internal and external ordering principles.

The third theme widens the scope of security to include military, political, economic, societal, and economic security sectors. This theme relies on research performed by Buzan, Waever and de Wilde. The wider security agenda is a direct result of the disaggregation of the state. The different security sectors affect different component parts of the state. However, the ensuing section excludes economic security, because it is treated later as its own state goal, comparable to security.

Insecurity is partly a product of the uncertainty and unpredictability that anarchy in its most elemental form generates. Security is one of the most basic state goals because it ensures survival and continuation of life.⁵ The corollary to absolute security is a complete absence of threats. However, perfect security is a scarce commodity. Order and stability are concepts that allow adequate levels of security in an environment that still contains threats. Order and stability affords the inhabitants of a society a higher probability for some measure of predictability.⁶ British political philosopher Thomas Hobbes was an early thinker who conceptualized a remedy to internal anarchy.

Hobbes' lived through significant historical times that deeply colored his political outlook. According to American diplomat and scholar Charles Hill, Hobbes was born in the year of the Spanish Armada; he lived through the Thirty Years War, and experienced the rising of the English Civil War.⁷ These experiences deeply affected Hobbes and, no wonder; they inspired him to explore the reasons for human animosity and conditions of insecurity.

Another historical event that had great impact on Hobbes was the Treaty of Westphalia. Hobbes' perhaps best known work, *Leviathan*, was published three years after the Treaty of Westphalia, in 1651, which put an end to the Thirty Years War. Hobbes concludes that people become enemies because they are equals. When two

⁵ Bull, Hedley. *The Anarchical Society: A Study of Order in World Politics*, 5.

⁶ Bull, Hedley. *The Anarchical Society: A Study of Order in World Politics*, 7.

⁷ Hill, Charles. *Grand Strategies: Literature, Statecraft, and World Order*, 89.

equals want the same thing in a world of limited resources, they become each other's enemies.

Hobbes' world is one of eternal quarrel, disorder and constant insecurity. Other men's actions are only predictable insofar as violence and injustice is constantly expected.⁸ The condition they exist in is one of anarchy. The only viable remedy to the steady condition of war is the Leviathan, who is the sovereign ruler. The sovereign must have monopoly of violence within his jurisdiction. Each individual transfers his or her rights to the sovereign, whose duty it is to uphold law and order. Hobbes is one of the earliest political theorists who forward the idea of a social contract between the people in the society and the sovereign.⁹ As Hobbes observes in the English Civil War, without a social contract, chaos reigns. He puts it most powerfully in one of his more famous sentences, so pungently that it deserves repeating.

Hobbes writes: "In such condition, there is no place for industry; because the fruit thereof is uncertain: and consequently no culture of the earth; no navigation, nor use of the commodities that may be imported by sea; no commodious building; no instruments of moving, and removing, such things as require much force; no knowledge of the face of the earth; no account of time; no letters; no society; and which is worst of all, continual fear, and danger of violent death; and the life of man, solitary, poor, nasty, brutish, and short."¹⁰

In Hobbes' mind, the Westphalian state was a remedy to internal uncertainty and insecurity. Security is rather the absolute foundation of civilized human life. The answer to the fundamental external security question that in a couple of centuries permeated every continent came to fruition in the Treaty of Westphalia in 1648. The sovereign state came into being formally through this treaty.

⁸ Hobbes, Thomas. *Leviathan or the Matter, Form and Power of A Commonwealth Ecclesiastical and Civil*, 81-82.

⁹ Hobbes, Thomas. *Leviathan or the Matter, Form and Power of A Commonwealth Ecclesiastical and Civil*, 86-87.

¹⁰ Hobbes, Thomas. *Leviathan or the Matter, Form and Power of A Commonwealth Ecclesiastical and Civil*, 82.

The state construct can be defined in many different ways and Weber and Hill suggest a definition based on the most salient functions of the state. German sociologist Max Weber devised a definition that in many respects constitutes the classic definition of the state. Weber writes that the state “claims the *monopoly of the legitimate use of physical force* within a given territory.”¹¹ Charles Hill points out that the important social construct of the state accommodated human diversity through agreed procedures.¹² The techniques and technologies allowed for control along territorial lines to span wider than before.

Perhaps the most significant consequence of the Treaty of Westphalia was that it interlinked individual security to that of the international system, through the sovereign state. Hill argues that a “moral order took form, in which state, community, and individual aspirations could interact among disparate people.”¹³ States have become an accepted entity, responsible for organizing social life internally. However, anarchy still defines relations among states, a condition that sometimes leads to war.¹⁴

Wars in the international realm conform to the Hobbesian idea of a fierce competition for scarce resources under conditions of anarchy. Bull regards war as one of the institutions in which humans organized in societies resolve disagreements. Wars in his estimation is in function equal to balance of power, diplomacy, international law, and great power management and their purpose is to preserve or restore a meaningful order among states.¹⁵ These institutions exist because the international arena lacks a “leviathan” to maintain order and thus security. Because states consist of a society and the society consists of humans, security for the states is in the interest of the individual.

Treating the state as a unitary actor hides many potential cleavages among the state and its society, and within society itself. States sometimes display an astonishing disregard for its society. A well-known example is Pol Pot’s rule in Cambodia in the

¹¹ Weber, Max. *From Max Weber: Essays in Sociology*, 78. Italics in original.

¹² Hill, Charles. *Grand Strategies: Literature, Statecraft, and World Order*, 5.

¹³ Hill, Charles. *Grand Strategies: Literature, Statecraft, and World Order*, 5.

¹⁴ Anarchy in the international realm implies that there is no higher authority in the system than states, and that states are equals in this sense. Anarchy means “a multiplicity of powers without government”. Doyle, Michael W. *Ways of War and Peace*, 45.

¹⁵ Bull, Hedley. *The Anarchical Society: A Study of Order in World Politics*, 5.

1970's, where the state killed 1.7 million of its citizens in an effort to restructure the society.¹⁶ This rift between the interests of the state and its society form the demarcation zone in which thoughts on human right arose. Consequently, there is not necessarily a convergence between the security of the state and the security of its inhabitants.

State security is more complex than the aggregate of the security of all its inhabitants. In order to clarify the complexity, British Professor in international relations, Barry Buzan divides that state into three component parts of the state in his book *People, States and Fear*.¹⁷ First, a state must have a physical base that consists of its territory and population. Second, a state must have institutions that govern the territory and, through the legal system, its population. Third, the population must share some idea of common belonging to lend legitimacy to the institutions governing the state. Buzan declares that a state lacking in any of the three component parts is highly disadvantaged.¹⁸

Buzan further points out that, perhaps self-evidently, the security of any of the component parts of the state can only be reduced if threats directed against them exist. Indeed, many of the contemporary conflicts concern the ideational and the institutional component parts of the state, rather than the physical base. The following paragraphs consider some of the existing threats to the ideational and institutional component parts of the state.

Threats to the ideational and institutional component parts of the states have internal as well as external sources. Internal rifts are not a new phenomenon. It is a modern extension of the ancient Greek tradition of analyzing factions within a state. Greek political philosophers, such as Thucydides, Plato and Aristotle devoted significant effort to understand factionalism, *stasis*, in the city states, *polis*.¹⁹

¹⁶ Kevin Doyle, "In Cambodia, Pol Pot's Regime on Trial at Last", Time, 17 February 2009, <http://www.time.com/time/world/article/0,8599,1879869,00.html>

¹⁷ Buzan, Barry. *People, States & Fear: An Agenda for International Security Studies in the Post-Cold War Era*, 65-66.

¹⁸ Buzan, Barry. *People, States & Fear: An Agenda for International Security Studies in the Post-Cold War Era*, 65-66.

¹⁹ Kalyvas, Stathis N. *The Logic of Violence in Civil War*, 18.

The examples from ancient Greece and contemporary Afghanistan indicate the universality of this phenomenon across time and space. The fact that states organized extensive security apparatuses mainly focused towards its citizens bespeaks the fact that states have long been aware of internal threats to the ideational and institutional components parts of the state.²⁰ Moreover, threats to the ideational and institutional component parts of the state may also originate from abroad. Preventing and controlling subversion initiated externally is a priority for most security agencies.²¹

The contemporary struggle in Afghanistan serves as a good example of where both internal and external factors are at play. The internal and external aspects are described by American political scientist Idean Salehyan in his book, *Rebels Without Borders*.

Salehyan concludes that rebels fight both against domestic institutions and sometimes against the very idea of the state itself.²² In fact, analysts claim that the struggle in Afghanistan mainly revolves around the contentious issue of establishing a state in the minds of the Afghani population who to a large degree reside in the rural areas.²³ Furthermore, it is a project determined to establish legitimate institutions in a traditionally decentralized country.²⁴ The example of Afghanistan clearly demonstrates threats to the ideational and institutional component parts of the state.

In sum, the legitimacy of the state as an idea and its institutional expressions signify the level of social cohesion of the state. The expression of how legitimate the idea of the state and its institution is depends, according to Buzan, on a society's social cohesion.²⁵ In fact, Buzan concludes that the degree of social cohesion distinguishes weak states from strong states. This concludes the exploration of threats to the ideational and institutional component parts of the state. The following paragraphs look deeper

²⁰ Atran, Scott. *Talking to the Enemy: Faith Brotherhood and the (Un)making of Terrorists*, 96.

²¹ Salehyan, Idean. *Rebels Without Borders: Transnational Insurgencies in World Politics*, 36.

²² Salehyan, Idean. *Rebels Without Borders: Transnational Insurgencies in World Politics*, 19.

²³ Jones, Seth. *In the Graveyard of Empires: America's War in Afghanistan*, 337.

²⁴ Giustozzi, Antonio ed. *Decoding the New Taliban: Insights from the Afghan Field*, 148.

²⁵ Buzan, Barry. *People, States & Fear: An Agenda for International Security Studies in the Post-Cold War Era*, 97.

into the more conventional side of state security, which is the one concerning the physical component part of the state.

The physical base of the state is the component part most similar to the human security condition described by Hobbes. Buzan and Danish professor of international relations Ole Waever write that for states, “[Security] is a distinctive realm in which the logic of territoriality continues to operate strongly.”²⁶ The physical component part comprises both the territorial entity Buzan and Waever alludes to and the population.

How secure a state is naturally depends upon the threats it faces and how vulnerable the state in question is for those particular threats. Buzan contends that, “insecurity reflects a combination of threats and vulnerabilities, and the two cannot be meaningfully separated.”²⁷ It is an important insight because these are terms in which a strategist must be able to think clearly. Buzan’s acumen forms the basis for the theoretical framework behind the development of a national security strategy, presented in the next chapter.

Traditionally, the military-political discourse has dominated the understanding of state security.²⁸ It is not surprising that the military-political discourse dominates security considering the number of wars humanity has experienced throughout time. Moreover, besides this quantitative explanation to the centrality of military threats to state security, it also has a qualitative corollary. War brings the fear of existential threat to the equation. American historian and military strategist Edward Luttwak asserts that even primitive wars had the potential of totally destroying the societies of the participants. In his estimation, primitive wars could lead to “the extinction of entire human communities.”²⁹

With increases in the industrial capability and the ability to harness it for destructive purposes in war through nationalism, wars became more and more total in the sense that civilian societies increasingly were directly affected by the war. The

²⁶ Buzan, Barry and Ole Waever. *Regions and Powers: The Structure of International Security*, 11-12.

²⁷ Buzan, Barry. *People, States & Fear: An Agenda for International Security Studies in the Post-Cold War Era*, 112.

²⁸ Buzan, Barry and Ole Waever. *Security: A New Framework for Analysis*, 21.

²⁹ Luttwak, Edward N. *Strategy: The Logic of War and Peace*, 66.

culmination of the parallel processes of industrialization and nationalism culminated in the 20th Century. The carnage of WW I consumed a large part of the young males in the German, French and British societies and exacted horrible future societal costs.³⁰

The air attacks directed against the population centers in WW II elevated the societal consequences of war further. Most contestants participated in the bombings, at least of those who had the capability, mostly because they believed it would shorten the war. Germany bombed Guernica in Spain and British cities, the United Kingdom bombed German city centers while the USA bombed German and Japanese cities as a consequence of their two-front war.³¹ Perhaps the closest the world has come to a truly existential military threat is the nuclear standoff between the Soviet Union and the USA during the period defined as the Cold War.

However, it is a strategic paradox that that very few states have disappeared after the Westphalian Peace Treaty, even when states have suffered crushing military defeats. Waltz writes “The death rate among states, however, is remarkably low.”³² The example of Germany is telling. Germany survived unconditional surrenders in two world wars after suffering complete military loss. The worst effects for the German state were perhaps all the resources expended and destroyed in vain during the wars and territorial losses when its borders were re-drawn. The German society, on the other hand, bore an excruciating burden both during the wars and in the recovery periods afterwards.³³

Admittedly, the distinction made between state and society is somewhat artificial but the fact remains that most states have survived despite military threats labeled as existential. Waltz think of only four states that have met involuntary ends in the last half-century – Estonia, Latvia, Lithuania and Tibet.³⁴ Another notable exception is the

³⁰ Horne, Alistair. *The Price of Glory: Verdun 1916*, 3 and 5.

³¹ Bungay, Stephen: *The Most Dangerous Enemy: An Illustrated History of the Battle of Britain*, 210.

Corum, James S. *The Luftwaffe: Creating the Operational Air War, 1918-1940*, 198.

Grayling, A. C. *Among Dead Cities: The History and Moral Legacy of the WWII Bombing of Civilians in Germany and Japan*, 15-74.

Pape, Robert A. *Bombing to win: Air Power and Coercion in War*, 260.

Tillman, Barrett. *Whirlwind: The Air War Against Japan 1942-1945*, 137-138.

³² Waltz, Kenneth N. *Theory of International Politics*, 137.

³³ For a description of life in Germany post-WWII, see for example Miller, Roger G. *To Save a City: The Berlin Airlift 1948-1949*, 3-8.

³⁴ Waltz, Kenneth N. *Theory of International Politics*, 137.

Austria-Hungary, which broke up after the end of WWI. Nevertheless, as its name reveals, Austria-Hungary was a union of two older states rather than a completely new state in its own right.³⁵

Moreover, an interesting phenomenon is that some states ceased to exist over a period of time, only to resurface with tectonic shifts in geopolitical balance. The Baltic States of Estonia, Latvia and Lithuania are examples of smaller states swallowed by larger and more powerful neighbors, such as the Soviet Union. In one of the greatest geopolitical spasms in history, the Baltic States along with numerous other Asian states, regained the independence when the Soviet Union ceased to exist 1990's.

In fact, the earth is populated with a steadily growing number of states, a growth that has occurred since the treaty of Westphalia despite some periodical setbacks. The UN provides a list of recognized and sovereign states joining the UN after 1945 that highlights the trend.³⁶

The point is not to downplay the military threat, merely to put it in perspective and more precisely, from the perspective of the state. From the perspective of the society, the military threat is much graver and consequential because of the costs imposed on the population during and after a war. In democracies, the distinction between state and population is, at least in theory, non-existent; meaning that the state should suffer the consequences of war in exactly the same way as its population.

One can regard the Cold War as a historical aberration, where the military threat grew to such proportions on a global scale, that it overshadowed other, traditional security concerns. The Cold War brought immediate and truly existential threat, posed by thermonuclear weapons and the potential prospect of a clash of conventional forces of immense proportions in Korea or Germany, the effects of which would ripple through entire continents. The post-Cold War era allows a restoration of the balance between military and other security concerns to more historically representative proportions

³⁵ Walzer, Michael. *Just and Unjust Wars: A Moral Argument with Historical Illustrations*, 91.

³⁶ United Nations, *Member States of the United Nations*,
<http://www.un.org/News/Press/docs/2006/org1469.doc.htm>

To summarize, it is useful to recognize that the state and its society can have separate interests and security concerns. In fact, in some cases, the state is the main security threat to the society.

Buzan develops a construct where the state is disaggregated into three component parts; the physical, the institutional and the ideational. Buzan's concept opens up the state to more nuanced analysis and it provides deeper insights for the strategist who mainly deals with other states and their strategies. Moreover, Buzan's disaggregation of the state is necessary in order to fully recognize how core national values feed into the strategic equation within and among states.

Furthermore, Buzan's disaggregation of the state is a prerequisite to understand how a wider security agenda affects the state and its different component parts. Military and political threats are traditionally considered the most significant to the security of states but in the post-Cold War era, the security agenda encompasses a wider array of threats. While the high-politics of the state may still be focused on military and political threats, the society might find other security issues more pressing. The nature of these threats often transgresses the territorial dimension of security.³⁷

The wider security agenda is the subject of the following discussion. It discusses the concept of security sectors and spans political, military, economic, societal and environmental sectors. However, because the study previously examined the military and political threats, and examines economic security under the second state goal of economic prosperity, the following analysis focuses on the economic, societal and environmental sectors. The examination begins with a discussion of the wider security agenda and the sector concept, followed by an analysis of each of the economic, societal and environmental sectors.

The major and most immediate threats to the state itself are military and political in nature. However, because one of the most fundamental component parts of the state is its population and society, the security discourse broadens. Buzan, Jones and Little have developed the concept of sectors, where each sector "highlights one particular aspect of

³⁷ Buzan, Barry and Ole Waver. *Regions and Powers: The Structure of International Security*, 11-12.

the relationship and interaction among all of its constituent units.”³⁸ They argue that security has a characteristic pattern with an inner logic, where the survival of collective units is at the center.³⁹ This definition opens up the aperture to a variety of sectors, including the military.

By making the collective unit rather than the state specifically, the heart of their definition, they are able to develop a cogent argument for a wider security agenda with threats that directly affect the societal element of the state. In effect, Buzan and company disaggregate the state and argue that external threats can affect individual component parts. The purpose of the sectors is to differentiate types of interaction and the authors find, not surprisingly, that interaction can be divided into military, political, economic, societal and environmental.⁴⁰ The following analysis dissects the economic, societal and environmental sectors one at a time, beginning with the environmental.

The environmental and societal sectors of security are perhaps the two most contested in the academic and practitioners’ debate about what security proper entails. The environmental sector mainly concerns the physical component part of the state, but it has ramifications affecting the ideational and institutional component parts too. However, many states confront the whims of nature to a much higher degree than they do military threats.

For example, Bangladesh is a state that faces many challenges from the environment. For instance, between 30-70% of the country is normally flooded each year.⁴¹ If global warming does happen, it will exacerbate many of its environmental problems further. Bangladesh shares its fate with many other states that exist in tough and exacting environments, especially in Northern Africa, the Middle East and South Asia.

³⁸ Buzan, Barry, Charles Jones and Richard Little. *The Logic of Anarchy: Neorealism to Structural Realism*, 31.

³⁹ Buzan, Barry and Ole Waver. *Security: A New Framework for Analysis*, 27.

⁴⁰ Buzan, Barry and Ole Waver. *Security: A New Framework for Analysis*, 27.

⁴¹ Agrawala, Shardul, Tomoko Ota, Ahsan Uddin Ahmed, Joel Smith and Maarten van Aalst. *Development and Climate Change in Bangladesh: Focus on Coastal Flooding and the Sundarbans*, 6.

Threats from the environment affect these states' security and belong properly in their security agenda. Perhaps because much of the literature on security stems from the West and the West has fewer problems with the environment and has historically faced more military security threats, the Western security agenda is more focused on military threats. However, for a grand strategy to be relevant across time and space, and thus universally applicable, environmental threats must be included in the security and strategy discourse.

The discussion about environmental security concerns has two referent objects; the environment itself and the societies affected by the environment.⁴² Both referent objects can affect the other. A society can pollute the environment to such a degree that it changes the ecological system. The shrinking of the Aral Sea in Central Asia is considered one of the most dramatic examples of a natural area destroyed by human activities, according to a study performed for the Asian Development Bank.⁴³ The problems are all manmade and mostly the result of Soviet insensitivity to the nature surrounding it. The dysfunctional ecology in and near the Aral Sea has come back to harm the surrounding societies because the environmental damage causes severe health issues to the populations living in the vicinity.

Furthermore, the environmental security sector is in many ways very complicated. It spans a wide range of issues and it has complex relationships among global and local levels.⁴⁴ Local action can cause regional and global environmental security issues. As an example, over fertilization of farmlands in one state can cause significant environmental damage to a large lake or sea and affect the security of many states. De-forestation is another example where local action can affect the global climate over time. Haiti provides an example of this latter problem.

Environmental security is thus more complex in some ways than military security. The causal connections among actors are often not straightforward and in addition, nature itself is sometimes causing environmental insecurity. Explanation exists both at the

⁴² Buzan, Barry and Ole Waver. *Security: A New Framework for Analysis*, 76.

⁴³ Ataniyazova, Oral A. *Health and Ecological Consequences of the Aral Sea Crisis*, 1.

⁴⁴ Buzan, Barry and Ole Waver. *Security: A New Framework for Analysis*, 79-80.

systemic and actor levels of analysis and the environmental sector contains a dynamic between cause and effect, where effects can become causes in their own right, given time. An example of the latter is the environment surrounding the Aral Sea, as described later.

Complexity provides a key characterization of the environmental sector. Dutch Professor in International Relations, Jaap de Wilde, found six major types of issues in the environmental sector in his survey of contemporary research. The six types of issues capture many of the problems identified in the global trends chapter and the compilation below is taken from de Wilde's research in *Security: A New Framework from Analysis*.⁴⁵ De Wilde's six environmental categories are disruption of eco systems, energy problems, population related problems, human conditions, economic problems, and civil strife. Each category is thematically described in the order above.

The first type of issue concerns disruption of eco systems, which for the most part is manmade and the object is nature itself. It includes climate change, loss of biodiversity, deforestation and different types of erosion, depletion of the ozone layer and various forms of pollution. The second issue type concerns energy problems. Energy problems in this category result from depletion of natural resources, scarcities and uneven distribution. The third issue covers population related problems, such as over population, epidemics and generally poor health conditions, migration and uncontrolled urbanization. The fourth type of issue describes human conditions in terms of food problems, poverty, loss of fertile soils and waters, water scarcity and uneven distribution of food. The fifth issue type relates to economic problems, caused by unsustainable production models, income distribution and structural asymmetries and inequities. The sixth and last type of environmental issue concerns civil strife, resulting from war damaging the environment and damages to the environment leading to violence and societal instability.

The distinction between different categories of issues in environmental security is largely artificial and exists for analytical purposes. In reality, many environmental security issues are intertwined and have highly complex, causal relationships that cannot be captured by a one-dimensional perspective.

⁴⁵ Buzan, Barry and Ole Waver. *Security: A New Framework from Analysis*, 74-75.

However, environmental security is a highly relevant element to many states in their national security strategy. It is a security sector to be taken seriously because it directly affects the physical component part of the state. Furthermore, if global warming leads to climate change; more states will have to consider this aspect of security more seriously than they perhaps have felt compelled to do so far. The societal consequences from the environmental security sector have social impact. The social security sector is the next object of analysis.

The societal security sector directly addresses the security of the nation within the state. It is closely associated with political security, which mainly concerns the stability of the state. Societal security recognizes the fact that the state rarely contains one nation within its borders. The operational logic underpinning societal security centers on identity.⁴⁶ A common example of this phenomenon is the Kurds, who resides in several countries, most notably Turkey, Iraq, Iran and Syria.

Another example is the imagined society that some Muslims consider themselves part of, an *Umma* that crosses the borders of states and reaches across traditional conceptualization of nations. Furthermore, Waever takes the precaution to avoid mistaking societal security from social security. The latter centers on the individual and is mostly economic in nature, while the former is about collectives and their identities.⁴⁷ Waever has in his research found four different threats to societal security; migration, horizontal competition, vertical competition, and depopulation.

The first threat to societal security is migration. Large-scale migration may lead to societal tension in recipient societies because their social cohesiveness may be perceived as diluted by the new people entering the society, if the migrants ascribe to a particular identity themselves.⁴⁸ If the migrants belong to several different identities, they remain smaller minorities and are not as threatening to the existing majority identity. However, if the migration wave is large and homogenous enough, it may upset the

⁴⁶ Buzan, Barry and Ole Waver. *Security: A New Framework for Analysis*, 119.

⁴⁷ Buzan, Barry and Ole Waver. *Security: A New Framework for Analysis*, 120.

⁴⁸ Buzan, Barry and Ole Waver. *Security: A New Framework for Analysis*, 121.

majority-minority balance within a state. This is then a threat to existing societal security.

The second type of threat to societal security is what Weaver labels as horizontal competition.⁴⁹ Horizontal competition implies that the identity of a homogenous population is threatened because it is heavily influenced by another culture. Weaver mentions the Quebecois in Canada, who fear that they will lose their societal specificity because they are surrounded by Anglo-Saxon culture within the borders of their state.

The third threat to societal security is vertical competition, meaning that secessionist or integrationist forces are at work. An example of the former, centrifugal force is Slovenia who decided to secede from Yugoslavia in the early 1990's. The European Union, EU, is an example of the opposite, where centripetal forces work to integrate separate identities into a new one.

The fourth threat to societal security is depopulation. Weaver is not sure it deserves a place among the other three threats but decides it is important enough to discuss.⁵⁰ The reasons for this threat are according to Weaver plague, war, famine, natural catastrophes and policies of extermination.

However, a recent phenomenon is shrinking populations in Western states, caused by reduced birth rates that put the population on decline. Initially, this is perhaps mostly a threat to the economic sector because the work force shrinks which in turn causes a shrinking economy and smaller tax base. However, if the trend is not reversed, it threatens to have societal effects similar to that caused by widespread disease, natural disaster, war and famine.

Societal security is perhaps more of an issue for non-Western states, just like environmental security. For the West, it is a question of properly integrating refugees and migrants into existing societies, but it may change if the effects of climate change drive populations from the south to the north on a scale that resembles historical migrations movements across continents. Migration, forced or voluntary is an issue for

⁴⁹ Buzan, Barry and Ole Weaver. *Security: A New Framework for Analysis*, 121.

⁵⁰ Buzan, Barry and Ole Weaver. *Security: A New Framework for Analysis*, 121.

several Non-western states, such as the Democratic Republic of Congo, which found large numbers of citizens of Rwanda fleeing across the border in the 1990's because of the civil war.⁵¹ Thus, societal security is an important consideration for national security strategy aiming to be relevant across time and space.

To summarize, the state can analytically be seen as consisting of three component parts; the physical base, the institutional expression and the ideational conception of the state. This way of viewing the states opens it up to a more nuanced analysis of what state security is; an analysis that is relevant to all of the state's constituent component parts. The security of the states cannot be viewed in isolation; it must be seen in relation to existing or coming threats.

Buzan and his fellow scholars divide the threats into five sectors. They are the military, political, economic, societal and environmental sectors. These five types of security sectors affect the three different component parts of the state differently. Furthermore, the different types of sectors are not equally relevant to all states and the importance of each sector to the particular state may change over time.

Then again, few threats to state security are truly existential in nature. The number of states steeped in the Westphalian form has increased rather than decreased over the years and it is very rare that a state actually ceases to exist. However, the effects on the physical component part of the state have in many cases been horrendous as a result of military or environmental security threats in operation.

This suggests that on the one hand, it is appropriate to measure military and environmental threats according to their impact on society and environment rather than on the state as a whole. On the other hand, political and societal threats are best measured in accordance with the impact on the institutional and ideational component parts of the state. These are important insights to strategist in that it enables a deeper understanding of causes and consequences than if the state is regarded as a homogeneous unit. The significance of a thorough understanding of the forces at play is difficult to

⁵¹ Salehyan, Idean. *Rebels Without Borders: Transnational Insurgencies in World Politics*, 146-147.

overstate, it is a prerequisite for a strategist attempting to marshal context to his own advantage.

Moreover, one of the most important and influential enablers for the strategist is economic power. Economic power is a resource a strategist can use to prevent, avoid and counter any of the security threats. In addition, economic power increases the economic welfare of the society and it is flexible enough to enable it to swing from support of welfare to support of security instruments when the need arises, given proper time to adjust. The capacity of economic power deserves its own analysis and is suggested as a state goal by itself.

ECONOMIC PROSPERITY

The following section explores the role of economic prosperity as a state goal. The section first looks into the symbiotic relationship among power and wealth. Second, it traces the historical development of industrialization and how it interrelated with nationalism and seeds of democratic governance, and the liberalization of economic markets. Third, the section defines the concept of economic power. The bulk of the research is provided by Keohane, Viner and Gilpin and Nye.

Economic prosperity is a most important state goal in itself because security can be purchased by economic strength and because economic prosperity increases the welfare of the citizens, an important aspect especially in democratic states. American Professor in Political Science, Robert Keohane, concludes that wealth and power are complimentary goals for states.⁵²

The connection between wealth and power has a long history. Keohane relates to research performed by Canadian economist Jacob Viner, one of the intellectual founders of the Chicago School of Economics, who asserted that wealth was an essential means to power for 17th Century mercantilist states. Moreover, to fully demonstrate the symbiotic relationship between wealth and power, Viner concludes that power is essential, or at the

⁵² Keohane, Robert. *After hegemony: Cooperation and Discord in the World Political Economy*, 22.

minimum valuable, to the acquisition and retention of wealth.⁵³ Economic prosperity has historically always been an important enabler for raising military forces in defense of territory or to conquer other people's territory. Yet, industrialization fundamentally changed the direct linkage between territory and economic development. It did not degrade the importance of economic power; on the contrary, it elevated economic development to one of the most important state goals.

The beginning of industrialization coincided with nationalism and gradual democratization of politics in the West, and liberalization of the economic market. The second wave of democratization, the first taking place in ancient Greece and its city-states, swept over Europe and North America gaining significant momentum in the 1800s. The democracies were far from perfect in the beginning, especially in Europe, where they initially built on a foundation of nationalism. However, gradually, the interests of the majority of the society and the state overlapped. Economic growth was in the interest of the citizens to improve their living conditions and gave hope to citizens of a better future for their children.

The third strand of development coinciding with industrialization and democratization was liberalization of economic markets. The idea of welfare became increasingly conceived of in materialistic terms, which further increased emphasis on industrial development and liberal trade. The following text elaborates on why economic prosperity is such a vital goal for states. The best way to understand the importance of economic prosperity is to dig deeper into the historical roots of economic development and how it even affects international order and stability. Thus, a historical exposé of industrialization and economic prosperity follows.

Industrialization upset the previous cost-benefit calculus among industrialized states. The ability of invention, channeled through the process of industrialization, fundamentally changed the cost-benefit calculation of industrialized states. Whereas previous to industrialization, the fastest way to increase state wealth was by territorial gain accomplished through military victory. American economist, historian and

⁵³ Keohane, Robert. *After hegemony: Cooperation and Discord in the World Political Economy*, 23.

Professor in International Relations, Richard Rosecrance, writes that “[It] was cheaper to seize another state’s territory by force than to develop the sophisticated economic and trading apparatus needed to derive benefit from commercial exchange with.”⁵⁴

Industrialization added the game changing capacity to increase wealth without simultaneously conquering territory.

In addition, the industrial revolution permitted societies to escape from the problem of diminishing returns that had plagued earlier attempts to increase wealth through territorial conquest. States encountered the effect of diminishing returns when they expanded to such an extent that the costs of maintaining order within their stretched borders became more expensive than the revenue than the territorial gains added.

American Professor Robert Gilpin, who has specialized in international political economy, found that industrialization did not only dispense with the need for territorial expansion to advance economic growth, but it also linked economic development tighter to military capacity than in earlier times.⁵⁵ Furthermore, a state’s relative economic growth carried its ability to keep up in the arms race that was ongoing in Europe since several centuries back. That is still true; a robust and growing economy provides the necessary resources for all the state’s instruments of power.⁵⁶

However, industrialization required access to raw materials. For most states, some natural resources were available domestically, while others were obtainable from abroad. The gradual creation of international economic markets made it more efficient to obtain the necessities from trade rather than conquest, which bound states together with varying degrees of interdependence.⁵⁷

American economist and international political thinker Joseph Nye, argues that the markets have proven very capable of distributing natural resources and raw material across the range of industrial states, without leaving any particular state wanting over

⁵⁴ Rosecrance, Richard N. *The Rise of the Trading State: Commerce and Conquest in the Modern World*, 160.

⁵⁵ Gilpin, Robert. *War and Change in World Politics*. 125-127.

⁵⁶ Nye, Joseph S. *The Future of Power*, 80.

⁵⁷ Gilpin, Robert. *War and Change in World Politics*. 138.

time.⁵⁸ The trust in the market that developed over time in industrialized states lessened the connection between economic growth and territorial conquest even further.

Thus, there is clearly a strong connection between security, economic prosperity and societal welfare. Economic power underwrites other forms of power, as well as societal welfare. Economic power can be measured in different ways and Nye connects economic power to the quantity and quality of national resources. Nye describes the economic resources that enable economic power in terms of the size and quality of gross domestic product, per capita income, the level of technology, natural and human resources, political, legal institutions for markets, trade, finance and competition.⁵⁹

In Nye's definition, the economic resources span across all three of the state's component parts. Political and institutional qualities are, as an example, as important as natural resources and level of trade. It is also interesting to note that Nye includes both the natural environment and the societal element in the physical component part of the state, in that he incorporates both natural and human resources.

Some societal organization types have proven more successful than others in maintaining high qualitative levels with regard to human resources. A hypothesis is that human resources are not limited to just numbers, but can include, for example, levels of education, creativity and inventiveness, and social and leadership skills. High quality in human resources is a prerequisite for conscious and deliberate invention, which is the foundation of successful economies in the industrialized and the post-industrialized era, as described by the next section.

Human invention enabled industrialization and propelled large parts of most Western economies from the industrialized age to the information age. The ability of a particular society to structure itself in a way that is highly conducive to reproducing and further developing the quality of its human resources is dependent on the way of life in that society.

⁵⁸ Nye, Joseph S. *The Future of Power*, 63 and 67.

⁵⁹ Nye, Joseph S. *The Future of Power*, 52.

WAY OF LIFE

The following paragraphs expand upon the third state goal; way of life. It divides the subject into a functional and a normative element. First, the functional element argues that certain ways of life are instrumental to the second state goal, economic prosperity. It specifically claims that the Western way of life supports the liberal economic market and differences in perspectives. The functional element consists of six specific components; competition, private initiative and accumulation of wealth, invention, adaptation, self-interest and specialization. All elements are integral to the Western way of life, which has sustained relative economic and military advantage over time.

The normative element of way of life is grounded on political and religious aspects rather than economic. The heart of the normative element is national core values, traditions, norms and customs. This part uses the examples of Eisenhower, Jefferson and Franklin on one side and Seyyd Qutb on the other side, to demonstrate the universality of the concept. Because national core values plays such a significant role in the normative element of way of life, the topic is briefly treated in this section, while the bulk of the examination is deferred to the next section, focused as it is exclusively on national core values.

The third state goal, way of life, contains a functional and a normative element and is important to both the state and its society because of overlapping interests. The functional element relates back to the discussion about wealth. As discussed below, the Western way of organizing the state and its society has proven highly capable of creating and accumulating wealth. Since wealth is an important state goal in its own right, a way of life supporting that goal is important to states. The normative element is an expression of a basic human desire to live a life in accordance with the core values of the society and without external interference.

This desire to live a life in accordance with values defined and adhered to by the closest social community seems to be universal and stretch across time and space. It is relevant in the Western discussion of the future and it defines the Islamic fundamentalist

movement, which largely is a reaction to the influence of Western values according to some Muslim theorists.⁶⁰

However, the functional element of way of life ties directly to the previous discussion about economic prosperity and thus, it is an appropriate starting point for the following dissection of the subject at hand. The study begins with a historical exposé of how Western way of life developed over the centuries, why it developed in its own unique way and how the Western type of society has contributed to the security and economic prosperity of its states.

The Western style of civilization has proven adept at creating and accumulating wealth. In particular, the liberal market economic model and its associated social organization principles developed slowly but unquestionably over the centuries, with fundamental changes beginning sometime during the twelfth century.⁶¹ Canadian historian William H. McNeill wrote two influential and notable works, *The Rise of the West* (1963) and *The Pursuit of Power* (1982), where he carefully traced the rise, development, and interrelationships of civilizations through 5,000 years of history.⁶²

McNeill compares Western as well as Eastern civilizations and investigates societal, economic, and military and geostrategic developments. He concludes that two factors in general determine how successful societies are in accumulating wealth and in providing security. The factors are competition and societal acceptance of private wealth and initiative.

The first factor is competition. A conclusion from reading McNeill is that that societies residing in a competitive environment and who are constantly contesting each other must develop effective ways to support the rivalry.⁶³ Furthermore, competing societies need to foster efficient as well as effective methods of organization if they aim to be successful not only in the current conflict but over time. The competition factor seems universal across cultures and civilizations.

⁶⁰ Qutb, Seyyid. *Milestones*, 7.

⁶¹ McNeill, William H. *The Pursuit of Power*, 142-143.

⁶² McNeill, William H. *The Rise of the West* and McNeill, William H. *The Pursuit of Power*.

⁶³ McNeill, William H. *The Pursuit of Power*, 107, 112-113, 117.

Competition seems to have propelled early Chinese and Arab civilizations to advanced levels. McNeill studied Chinese civilization under the warring states period, where constant competition promoted technical, economic and cultural development.⁶⁴ Competition fostered a search for effective methods to survive against the existential threats in China too.

In addition, French sociologist Scott Atran explains Arab expansion in the eight century in the same terms. Mohammed succeeded in uniting the Arab tribes, a process that ignited conflict and competition with Byzantium and the Sassanids of Persia initially, and later with the Eastern and Western Roman Empire.⁶⁵ Arab geostrategic expansion triggered scientific and cultural innovation and eventually social change.

Competition is thus an essential component behind the development of successful societies. The definition of a successful society is that it is able to ensure its long-term survival, sustain economic prosperity over time and choose the way of life its citizen's agree upon. However, even if competition seems to be a necessary component for successful civilization development and progress, it is not sufficient to explain it entirely. The other necessary key component to successful societies lies in their response to the challenges of competition.

The second factor in McNeill's argument can be interpreted as being the support in Western societies of individual initiative, private accumulation of wealth and active participation of the private in the public sphere with the purpose of shaping politics. The key enabler to the successful organization of society is the liberal free market and the resulting market behavior it compelled from both the state and the private actors within it.⁶⁶

McNeill argues that the end of Chinese societal supremacy came about because they failed to continue policies determined by market behavior. The Chinese rulers responded to the competition over time by centralizing authority and limiting market

⁶⁴ McNeill, William H. *The Pursuit of Power*, 39.

⁶⁵ Atran, Scott. *Talking to the Enemy: Faith, Brotherhood and the (Un)Making of Terrorists*, 78.

⁶⁶ McNeill, William H. *The Pursuit of Power*, 150.

behavior and private accumulation of wealth.⁶⁷ The return to a command economy was mirrored in politics where the room for individual initiative shrunk gradually. Chinese society stagnated as a result.⁶⁸

The Arab society seemed to run through a similar cycle. Atran concludes that the Arab civilization began to stagnate in the tenth century when the religious engine gradually shifted to obedience and imitation based on authority, away from individual choice and independent judgment.⁶⁹ The Arab civilization ceased to expand and the Arab rulers became more concerned with the defense of acquired territories. The scientific and cultural drive gradually died out as a result and the civilization seemed to have lost its previous vigor.

One of the most important aspects behind the liberal market economy is invention. Industrialization is an expression of many conceptual and physical inventions coming together over a comparatively short period of time in history. Geoffrey Parker, a British military historian, explains the rise of the West from a purely military perspective, yet he finds the very basis for a superior military capability residing in its ability to innovate and produce.⁷⁰ In *The Military Revolution*, Parker describes how industrialization transformed the production of military essentials, perhaps especially concerning gunpowder weapon systems.⁷¹

The capital intensive way of war that developed in the West required corresponding innovation in bureaucratic organization, social structures and infrastructures, and modern finance to blossom into its full potential.⁷² The Western way of life was transformed as a consequence, because it was necessary to sustain effective and, over time, efficient measures to maintain participation in the competition.

As early as the Greek city states, there was an awareness of that the chosen way of life differentiated among the social units and that way of life was more or less capable

⁶⁷ McNeill, William H. *The Pursuit of Power*, 49.

⁶⁸ McNeill, William H. *The Pursuit of Power*, 48.

⁶⁹ Atran, Scott. *Talking to the Enemy: Faith, Brotherhood and the (Un)Making of Terrorists*, 81.

⁷⁰ Parker, Geoffrey. *The Military Revolution: Military Innovation and the Rise of the West 1500-1800*, 174, 176.

⁷¹ Parker, Geoffrey. *The Military Revolution: Military Innovation and the Rise of the West 1500-1800*, 174.

⁷² Parker, Geoffrey. *The Military Revolution: Military Innovation and the Rise of the West 1500-1800*, 174.

of sustaining competition. For example, Thomas Mahnken, American specialist in international relations, writes that “The notion that there is a connection between a society and its style of warfare has a long and distinguished pedigree. In his history of the Peloponnesian War, Thucydides records that the Spartan king Archidamus and the Athenian *strategos*, or general, Pericles linked the capabilities of their military to the constitution of their states.”⁷³

A willingness to embrace continuous adaptation is required for states that not only want to survive on their own terms in the competitive environment of the international sphere, but do so with a continuous advantage. Adaption is required due to constantly changing circumstances.⁷⁴ Invention and innovation are necessary elements behind successful adaptation. The Western societies fostered invention and innovation through private entrepreneurship.⁷⁵

Inventors and innovators must consider technical, social, economic, political and scientific factors because they are highly interrelated and malleable.⁷⁶ The fact that these factors are flexible means that the inventor/innovator can change the rules of the game, a concept very similar to that of the strategist who strives to marshal context in his own favor.

This type of invention and innovation is a function of what British sociologist John Law labels heterogeneous engineering. Law defines heterogeneous engineering as the purposeful integration of heterogeneous elements that are shaped and assimilated into a network.⁷⁷ The larger the network is, the more difficult it is to accomplish successful engineering. Thus nationwide adaptation of society and its traditions of politics, religion and economics are difficult to get right and take long time to implement. They are however, the ultimate prize in the struggle for comparative advantage over the course of history.

⁷³ Mahnken, Thomas G. *Technology and the American Way of War since 1945*, 3.

⁷⁴ Dolman, Everett Carl. *Pure Strategy: Power and Principle in the Space and Information Age*, 11.

⁷⁵ McNeill, William H. *The Pursuit of Power*, 150.

⁷⁶ Bijker, Wiebe E., Thomas P. Hughes and Trevor Pinch ed. *The Social Construction of Technological Systems: New Directions in the Sociology and History of Technology*, 112.

⁷⁷ Bijker, Wiebe E., Thomas P. Hughes and Trevor Pinch ed. *The Social Construction of Technological Systems: New Directions in the Sociology and History of Technology*, 113.

Furthermore, invention and innovation are difficult properties to foster within a society. The ability to promote invention and innovation seems to be contingent on some aspect of the societal environment. Barry R. Posen, an American Professor in international relations, concludes that hierarchic, bureaucratic organizations are ill suited for invention and innovation.

Posen's study of how organizational theory can explain general tendencies within military organizations and how this affects strategy and doctrine, are to a degree representative for other bureaucracies too. His general conclusion is that hierarchic, highly bureaucratic organizations abhor uncertainty and prevent the free flow of ideas necessary for invention and innovation.⁷⁸ Posen has a grim view of the probabilities for invention and innovation in the type of organizations he analyzes.

According to Posen, it takes outsiders to promote invention and innovation and outsiders come in the form of civilian intervention in military planning. However, outsiders also operate within the bureaucracy and Posen brands them insurgents or mavericks.⁷⁹ In Posen's stern and unoptimistic estimation, the insider maverick needs civilian patrons to succeed in changing their institution successfully. In addition, Thomas Kuhn's observed the importance of an outsider's perspective in changing scientific paradigms, where new or young scientists provided a challenge to old paradigms and the impetus to create new ones.⁸⁰

However, not all is lost according to other writers. American Professor in National Security and Military Affairs, Stephen P. Rosen, holds a much more optimistic view on the possibilities for bureaucratic invention and innovation. Rosen also focuses on military bureaucracies, but military bureaucracies reflect a general tendency of large organizations. Rosen concludes that bureaucracies can invent and innovate but it requires a broad-minded leadership, bent on change.⁸¹ According to Rosen's findings, the

⁷⁸ Posen, Barry R. *The Sources of Military Doctrine: France, Britain, and Germany between the World Wars*, 224.

⁷⁹ Posen, Barry R. *The Sources of Military Doctrine: France, Britain, and Germany between the World Wars*, 142 and 174.

⁸⁰ Kuhn, Thomas S. *The Structure of Scientific Revolutions*, 90.

⁸¹ Rosen, Stephen Peter, *Winning the Next War: Innovation and the Modern Military*, 21.

strategy of the leaders contain both intellectual and organizational components.⁸² These are opportunities that strategists should keep an open eye towards because Rosen opens a gap of opportunity to transform society to adapt to changing circumstances. Most societies have principal similarities to bureaucracies in that they are functionally specialized and hierarchical to some degree.

It is important to underscore the role of perspective. Societies rarely have the good fortune to tap outsiders' perspectives but have to rely on domestic human capital to invent and innovate. The Western model of a relatively free economic market has proven adept at fostering societal invention and innovation to adapt to changes in the strategic context.

Moreover, coupled with democratic governance models, Western societies not only allow a multitude of different perspectives, they actually encourage them. One of the important free market contributions to this end is the inherent ability to promote and sustain individual entrepreneurship.

Invention and innovation are key to the long-term survival of social units such as states. Stagnation is the opposite of progress and the world will continue to progress, leaving an ever-increasing gap between it and stagnate states. This is the very nadir of strategy, if the goal of strategy is to achieve a position of continuous advantage.⁸³ Scottish social philosopher Adam Smith conceptualized and formalized the first theory of the free economic market in the eighteenth century, which empowered invention and innovation in technology and techniques suitable for manufacturing market commodities.

Smith found that the free market was in alignment with basic human properties, as is clear through the following quote: "It is not from benevolence of the butcher, the brewer or the baker, that we expect our dinner, but from their care for their own interest. We appeal not to their humanity but to their self-interest, and never talk to them of our own necessities, but of their advantages."⁸⁴

⁸² Rosen, Stephen Peter, *Winning the Next War: Innovation and the Modern Military*, 21.

⁸³ Dolman, Everett Carl. *Pure Strategy: Power and Principle in the Space and Information Age*, 6.

⁸⁴ Jenkins, Arthur Hugh. *Adam Smith Today: An Inquiry into the Nature and Causes of the Wealth of Nations*, 37.

The self-regulatory functions of the free market, known as the invisible hand according to Smith, provides a structure that funnels the basic individualistic characteristics of the human being to a constructive and productive whole, that benefits public prosperity and happiness.⁸⁵

This is of course only partially true because experience clearly demonstrates that all markets require some form of regulation from higher authority, an economic type of Leviathan or Sovereign in Hobbes' words, to function properly. The recent economic crises in the USA and EU are evidence of an insufficiently regulated market gone wrong to the detriment of the national economies. Some of the environmental problems in China and India are caused by unregulated entrepreneurship, and they are both clear indications of regulatory needs.

However, as seen in the Soviet Union and other parts of China, command economies can be just as bad even though they are almost completely regulated.

Another obstacle to an absolutely free market may be the risk of what Elliot Currie labels a "highly concentrated set of powerful economic actors who are quite willing to subvert or corrupt the market whenever it gets in their way."⁸⁶ In the end, most of the debate about the virtues of a command economy or a free market really centers on the proper degree of regulation, where the command economy presents one of the extremes and the free market the other.

However, the core of Smith's argument seems to hold true to those who have researched the rise of the Western civilization. The fusion of the common and collective needs and individualistic motivators by the free market structure do seem particularly successful in comparison to other solutions to this dilemma in the pool of history. The free market has proven very successful in fostering invention and innovation, because of the free competition between economic actors.

⁸⁵ Jenkins, Arthur Hugh. *Adam Smith Today: An Inquiry into the Nature and Causes of the Wealth of Nations*, 380.

⁸⁶ Curtis, Alan, ed. *Patriotism, Democracy and Common Sense: Restoring America's Promise at Home and Abroad*, 319-320.

In a way, it seems as if the free, liberal market economy mirrors the unregulated and competitive political market of international relations, leading to the same uncertainties about security, economic prosperity and way of life but also to opportunities, cooperation and creativity. These characteristics are also shared by the democratic governing principle, which espouses a free market where ideas constantly compete among each other. This concludes the examination of the functional component of way of life. Next is the exploration of the normative component of way of life.

The following paragraphs explore the normative component by looking at how Eisenhower, Jefferson, Franklin and Qutb value this component. From the research below, the normative component of way of life can be described as the desire of people to determine their own fate and to organize their society in accordance with their own core values, culture and code of conduct. Way of life seems important across civilizations and states as the exploration demonstrates.

American General and President of the United States, Dwight D. Eisenhower, struggled to maintain his perception of the American way of life when confronted with the massive and existential thermo nuclear threat emanating from the Soviet Union in the 1950's.⁸⁷ In contrast to the economist McNeill, Eisenhower was perhaps more worried about the normative aspect of way of life than its functional component. American historian Campbell Craig relates how Eisenhower struggled to get his administration into the fold when they worked on the national security policy.⁸⁸

Eisenhower's policies underscored that the goal of the security policy was not only to ensure the physical survival of United State but also to preserve its fundamental values and institutions.⁸⁹ At the end of his Presidency, he feared that he had inadvertently changed the institutions of his country towards a technocracy, increasingly ruled by scientific-technological elites, and an economic sector impoverished by a military-industrial complex.⁹⁰

⁸⁷ McDougall, Walter A. ...*The Heavens and the Earth: A Political History of the Space Age*, 73.

⁸⁸ Craig, Campbell. *Destroying the Village: Eisenhower and Thermonuclear War*, 62-66.

⁸⁹ Craig, Campbell. *Destroying the Village: Eisenhower and Thermonuclear War*, 65.

⁹⁰ McDougall, Walter A. ...*The Heavens and the Earth: A Political History of the Space Age*, 229.

Of course, Eisenhower was only one in a row of state leaders who confronted this problem of balancing requirements stemming from international competition whilst preserving the desired and effective way of life of the state. Thomas Jefferson, President of the United States between 1801 and 1809, and Benjamin Franklin, one of the founding fathers of the country, fought to maintain an appropriate balance between liberty, power and virtue in their society.

Pacing Eisenhower, Jefferson and Franklin feared that large scale changes to the society, in their case brought about by technological progress, would threaten, corrupt and bring down the moral and political economy that the Constitution espoused.⁹¹ Eisenhower, Jefferson and Franklin all worried that ongoing, deep technological changes would ultimately force gradual changes to the American way of life, which would upset the balance between technological and economic progress and the values of the society.

In another civilization, Qutb toils to align fundamental Islamic beliefs with progress in competition with Western cultures. His is not only an endeavor to transform existing Muslim societies to a more original way of life, but to attain the leadership of mankind.⁹² In contrast to Eisenhower, Jefferson and Franklin, Qutb extracts the values and morals from divine authority, as interpreted by Qutb himself, and not from a political and decidedly human authority. As such, Qutb concludes that the values determining the way of life are fixed and independent of changes in the societal and strategic environment.⁹³

In fact, Qutb's book *Milestones* is a political campaign, based on divine direction, aimed at compelling Muslim societies to return to a certain way of life that the author prescribes as the only true one for a Muslim. No matter where one stands in the normative discourse defined differently among civilizations, the importance of way of life as a proper state goal is evident.

⁹¹ Roe Smith, Merritt and Leo Marx, ed. *Does Technology Drive History: The Dilemma of Technological Determinism*, 3.

⁹² Qutb, Seyyid. *Milestones*, 10.

⁹³ Qutb, Seyyid. *Milestones*, 97.

In conclusion, the state goal of way of life has a functional component and a normative component. The functional component is the ability of the chosen way of life to support the state goal of economic prosperity. The Western way of life in its liberal market economy incarnation has proven well adept at creating and sustaining comparatively high levels of wealth. The normative component of way of life is the desire of people to live life according to their own value, norms and traditions with no external compelling interference.

Both the functional and normative components of way of life are shaped by the ethical and moral underpinnings of the preferred way of life. There is thus a direct relationship between the national core values and the state goals. This is the subject of the next section.

NATIONAL CORE VALUES

This section examines the core national values of the Western tradition and how they are accommodated within society. The national core values are the foundation of the Western civilization and it is these values that have permitted and enabled the Western way of life that has proven so conducive to economic prosperity. Remember too, that economic prosperity in turn has purchased an enduring relative security advantage for the West over centuries, if not millennia. The national core values and the Western way of life is the very foundation upon which a Western continuous advantage rests.

The section begins by analyzing the role of the social contract. It concludes that the social contract is a necessary component of societies espousing Western values because it enables conflicting perspectives, values and opinions to be accommodated sufficiently within the state construct.

The second part of this section briefly traces the origins of Western values, before it examines each value in detail. It deduces that the Western civilization contain four values; individual freedom and liberty, sovereign representation of the general will

through consent, rights of property and the market as the deciding mechanism in economy. The study already examined the last two points, which means that the focus in this section is on the former two, individual freedom and liberty and sovereign representation of the general will through consent. It indicates that democracy is not a value in itself, but is indispensable for any society trying to uphold its true core values.

National core values are a difficult subject to write about because they are highly contingent upon the environment within which a particular state exists. To aim for a consensus of values relevant across time and space is to stretch the subject well past its breaking point. It would of course be possible to write about national core values in general terms and the role they play to the strategist. However, just as with way of life, it seems much more rewarding to be concrete and take a stand on values existing in a specific culture. The only problem remaining is that even within a culture, there is rarely consensus of what the core values are. Thus, the values presented in this text are chosen in accordance with what research has revealed as important and formative for the Western culture, reflecting the author's frame of reference.

This section about national core values begins by taking a look at the mechanism that allows conflicting values to coexist within a society confined by the borders of a state. The mechanism is the social contract and it is extremely central to democratic societies where the citizens have not relinquished all powers to a sovereign as in Hobbes' version of the social contract, but retain and share the sovereign power among them. The rest of this section identifies the national core values that are the foundation of the Western civilization. The most fundamental values undergirding Western societies are freedom and liberty, which enable the creation of individual opportunities.⁹⁴

The most important civic value function in Western societies is arguably the social contract. This is so because the social contract organizes conflicting civic values within a society. The following paragraphs examines French philosopher Jean-Jacques

⁹⁴ Scruton, Roger. *The West and the Rest: Globalization and the Terrorist Threat*, ix.

Rousseau's version of the social contract. Rousseau stood on the shoulders of earlier contractarians, Hobbes and Locke.⁹⁵

However, the three philosophers arrived at the social contract for different reasons. As previous examination of Hobbes demonstrated, he mainly justified the contract for security reasons. Locke rationalized the social contract out of security, liberty and ownership of property.⁹⁶ Rousseau's social contract, on the other hand, encompassed all sectors of society. Rousseau attempted to strike a balance between the collective and the rights and freedoms of the individual, as the examination below illuminates.⁹⁷

Rousseau formulates the problem of the dilemma as "The problem is to find a form of association which will defend and protect with the whole common force the person and goods of each associate, and in which each, while uniting himself with all, may still obey himself alone, and remains as free as before."⁹⁸ The solution Rousseau found in his version of the social contract was "*Each of us puts his person and all his power in common under the supreme direction of the general will, and, in our corporate capacity, we receive each member as an indivisible part of the whole.*"⁹⁹ Rousseau place great faith in the general will.

British philosopher Roger Scruton places more trust in the rational thinking of the individual citizens. He writes: "When you and I exchange promises, the resulting contract is freely undertaken, and any breach does violence not merely to the other but also to the self, since it is a repudiation of a well-grounded rational choice."¹⁰⁰ The intimate interdependency among the individual and the collective is the central theme in both Rousseau's and Scruton's versions of the social contract.

What Rousseau proposes is that free men, divided by labor specialization, private property and religion, band together in an act of association that creates a moral and

⁹⁵ Stanford Encyclopedia of Philosophy. *Contractarianism*.
<http://plato.stanford.edu/entries/contractarianism/>

⁹⁶ Doyle, Michael W. *Ways of War and Peace*, 214.

⁹⁷ Rousseau, Jean-Jacques. *The Social Contract*, 23.

⁹⁸ Rousseau, Jean-Jacques. *The Social Contract*, 23.

⁹⁹ Rousseau, Jean-Jacques. *The Social Contract*, 24. Emphasis in original.

¹⁰⁰ Scruton, Roger. *The West and the Rest: Globalization and the Terrorist Threat*, 7.

collective body, and from this act, receives identity and will.¹⁰¹ When the participants share in the sovereign power, as in a democracy, they form a citizenship under the institutional construct of the republic. The citizens in effect voluntarily relinquish the full extent of the natural freedom and restrict their ability to act for the purpose of forming a society where they all have a share of the sovereign powers.

As early philosophers as the Greek Plato understood that the desires of human beings must be restricted, otherwise chaos would reign.¹⁰² By submission to the general will, every citizen remains free and unthreatened by the freedom of others. It also leads to an experience of membership, which allow for recognition and respect for social obligations and duties.¹⁰³ Furthermore, the division of labor links the economic system and the political system in yet another way.

Toynbee concludes in his text titled, *A Study of History*, that division of labor and societal specialization possibly is a necessary condition for the creation of institutions. He writes, "...it is difficult to conceive how institutions could exist without in some way being embodied in the persons of particular human beings who are thus invested with special social functions."¹⁰⁴ Institutions are of course the modern expression of the sovereign and the general will.

Rousseau clearly understands that submission to the general will is a compromise and that the general will is not always correct.¹⁰⁵ The political power can be abused. French political thinker and historian Alexis De Tocqueville warns of the tyranny of the majority, where "the intellectual domination of the greater number ... will always be extremely absolute; and by whatever political laws men are governed in the ages of equality, it may be foreseen that faith in public opinion will become for them a species of religion, and the majority its ministering prophet."¹⁰⁶

¹⁰¹ Rousseau, Jean-Jacques. *The Social Contract* , 24.

¹⁰² Rosen, Stanley. *Plato's Statesman: The Web of Politics*, 154.

¹⁰³ Scruton, Roger. *The West and the Rest: Globalization and the Terrorist Threat*, 13.

¹⁰⁴ Toynbee, Arnold J. *A Study of History Vol. I*, 190.

¹⁰⁵ Rousseau, Jean-Jacques. *The Social Contract* , 34-35.

¹⁰⁶ De Tocqueville, Alexis. *Democracy in America Vol. II*, 11.

In Rousseau's social contract, the citizens institutionalize the sovereign power and are as a collective responsible for developing the laws of the state, as demonstrated by the examination of Rousseau above. Rousseau's social contract thus contains the seeds to modern Western democratic governance.

In concert with Rousseau's social contract, Coker concludes that democracy is not a liberal value in its own right.¹⁰⁷ Its use is instrumental in that it permits representation and to date is the best institutional expression for furthering the liberty of man, sharing the society with other men.¹⁰⁸ Liberty is the most important value to the liberal thought.

The social contract in Rousseau's terms is based on the equality of all citizens to prevent some of the dangers that uninhibited human freedom brings to society.¹⁰⁹ This means that the liberties should be applied equally to all citizens, something that is easily forgotten if the liberal agenda completely focus on freedom.

The actual expression of institutional equality is of course at the heart of the debate between the liberal laissez-faire model and social liberalism. Should equality be defined along all terms of liberty and should the discourse span the global as well as the national? These are questions a strategist must ponder hard before devising and suggesting a particular strategy.

Rousseau's social contract furthers the democratic solution devised by the Greek city-states by including all citizens. Women, of course, were not included since the male part of the population supposedly represented the women in politics. Still, the social contract is a necessity for a functioning democratic state. When groups are deliberately excluded from the social contract within the borders of a state, instability can develop as seen in countries where minorities are not fully included.¹¹⁰ The civil unrest in the USA during the 1960's can be seen as a consequence of the black part of the population not enjoying the same benefits from the social contract as their white counterparts.

¹⁰⁷ Coker, Christopher. "Rebooting the West: The US, Europe and the Future of the Western Alliance", *Royal United Services Institute Whitehall Paper no. 85*.

¹⁰⁸ Scruton, Roger. *The West and the Rest: Globalization and the Terrorist Threat*, 55.

¹⁰⁹ De Tocqueville, Alexis. *Democracy in America Vol. II*, 96-97.

¹¹⁰ Coker, Christopher. "Rebooting the West: The US, Europe and the Future of the Western Alliance", *Royal United Services Institute Whitehall Paper no. 94*.

The mechanism of the social contract has immediate consequences on the strategist. The social contract is extremely central to Western democratic societies where the citizens have not relinquished all powers to a sovereign as in Hobbes' version of the social contract, but retain and share the sovereign power among them. The distinction is of outmost importance to the strategist. In his social contract, people give up any claim to sovereign power and place it in the hands of the Leviathan.¹¹¹ The people do so voluntarily because they find it to be in their own interest.¹¹²

Yet, Hobbes' social contract is also representative of authoritarian regimes with the difference being that the people are coerced into giving up any aspiration of sharing the sovereign power. In Rousseau's version of the social contract, however, people form a social contract voluntarily but retain the sovereign power, shared among the citizens of the state.¹¹³ The sovereign power resides among the citizens in Rousseau's social contract, and not among the elites of the society.

Being part of the elite, the politician and the strategist, however, must be aware that they not develop policies and strategies that diverge from the citizen's perceptions of state goals and the societal core values. If they diverge significantly, the politician and the strategist in effect change the social contract from Rousseau's version to Hobbes' version. If they allow a situation to develop, where their actions are not anchored in societal perceptions of state goals and national core values, the Western politician and strategist tamper with nothing less than the conceptual foundation of their civil society.

For the strategist, responsible for marshaling context to their own continuous advantage, this is one of the absolute boundaries to their freedom of action. Furthermore, the strategist must also consider the core values as an object of reference, to ensure that the strategy does not depart too much from the values, or if the strategists chooses to do so anyway, can do it consciously.

Most of the civic values in Western civilizations stem from the liberal tradition of thought. The values can be traced back to the early Egyptian civilization and how they

¹¹¹ Doyle, Michael W. *Ways of War and Peace*, 115.

¹¹² Doyle, Michael W. *Ways of War and Peace*, 115.

¹¹³ Doyle, Michael W. *Ways of War and Peace*, 145.

developed through Greek and Roman societies. However, back in those societies, the individual body belonged to the Polis and as such, was deprived of most of the rights developed in the later Liberal tradition.¹¹⁴ Religious values are deferred to the private sphere in this tradition, much as a consequence of how the Christian Church developed as a parallel entity to the state in the West. German historian and philosopher Oswald Spengler writes that in the thirteenth century, a secular law inherited from German tribes was formalized and adopted by secular rulers to compete for power with the Papacy.¹¹⁵

Rousseau built on this foundation and incorporated religious tolerance as one of the main components of his social contract.¹¹⁶ He does point out however, that the civic values must distill and incorporate the most salient religious values and translate them into institutional law. It is quite evident that Western civic values are closely related to some religious values derived from Christianity but for the most part, the values discussed are civic and not religious in character.

The Liberal tradition can be said to encompass four linked propositions.¹¹⁷ The first and most basic proposition concerns the freedoms and liberties of the individual. The second proposition implies that the sovereigns derive their power from consent of the citizens, who constitute an electorate that determine precisely who the representative sovereigns will be. The representative form of government was a concept recognized and formalized by French philosopher Montesquieu as a fundamental new philosophical phenomenon.¹¹⁸ The representative philosophy meant that the theoretical holder of sovereignty, the citizens, no longer directly ruled over society.

The creation of representative parties is a step further on this road. Aaron writes, “By the same token, the phenomenon of parties became essential since the unity or plurality of parties determined the modality of the representation.”¹¹⁹ The third proposition links the political system and individual liberties to the economic and

¹¹⁴ Spengler, Oswald. *The Decline of the West II*, 60.

¹¹⁵ Spengler, Oswald. *The Decline of the West II*, 78.

¹¹⁶ Rousseau, Jean-Jacques. *The Social Contract*, 134-136.

¹¹⁷ Doyle, Michael W. *Ways of War and Peace*, 207.

¹¹⁸ Montesquieu, Charles de Secondat. *The Spirit of Laws*. Montesquieu examines the nature of three different types of governments: republican, monarchical and despotic. From the different nature of these governments, he infers that states acquire a distinct character because of the nature of the government.

¹¹⁹ Aaron, Raymond. *Democracy and Totalitarianism*, 58.

prescribes recognition of the rights of private property. The fourth and final proposition stipulates that market forces of supply and demand should mainly shape economic decisions be free of bureaucratic meddling. The following analysis takes a deeper look at what the first proposition, freedom and liberty, brings in terms of values.

The first proposition of liberalism is individual right to freedom and liberty. Liberty consists of institutionalized freedoms and rights. American legal scientist Brian S. Tamanaha writes that “the individual is free in so far as the government is restricted from infringing upon an inviolable realm of personal autonomy.”¹²⁰ Personal liberty is a condition that “constitutes the minimum degree of autonomy individuals retain even after consent to live under the law.”¹²¹ The final element in the definition is the institutional and it comes into fruition through the institutional separation of the judicial apparatus from the government institutions.”¹²² Tamanaha’s definitions have a long history and were summed up by Mill in the 19th Century.

Institutionalized liberty developed over time as a struggle against authoritarian forces. According to British philosopher John Stuart Mill, liberty developed as a protection of the individual against the tyranny of political rulers.¹²³ Mill expresses his intention with the concept of civic liberty in the following quote:

“This, then, is the appropriate region of human liberty. It comprises, first, the inward domain of consciousness; demanding liberty of conscience, in the most comprehensive sense; liberty of thought and feeling; absolute freedom of opinion and sentiment on all subjects, practical or speculative, scientific, moral, or theological. The liberty of expressing and publishing opinions may seem to fall under a different principle, since it belongs to that part of the conduct of an individual which concerns other people; but, being almost of as much importance as the liberty of thought itself, and resting in great part on the same reasons, is practically inseparable from it. Secondly, the principle requires liberty of tastes and pursuits; of framing the plan of our life to suit our own character; of doing as we like, subject to such consequences as may

¹²⁰ Tamanaha, Brian S. *On the rule of law: history, politics, theory*, 35.

¹²¹ Tamanaha, Brian S. *On the rule of law: history, politics, theory*, 35.

¹²² Tamanaha, Brian S. *On the rule of law: history, politics, theory*, 35.

¹²³ Mill, John Stuart. *On Liberty*, 1.

follow: without impediment from our fellow-creatures, so long as what we do does not harm them, even though they should think our conduct foolish, perverse, or wrong. Thirdly, from this liberty of each individual, follows the liberty, within the same limits, of combination among individuals; freedom to unite, for any purpose not involving harm to others: the persons combining being supposed to be of full age, and not forced or deceived.”¹²⁴

Mill goes on to state that a society where these liberties are not respected is not a free society; true freedom exists only when people are free to pursue their own ends according to their own ways, as long as they do not attempt to deprive others of theirs, or impede their effort to obtain it. In this manner, he succinctly defines the extent and limits of individual freedom and liberty.

French poet and philosopher Paul Valéry describes the freedoms and liberties as “the state of a man, who in such and such a particular case can create an *ad hoc* determinism for his own purposes.”¹²⁵ Each citizen has the ability to determine their own destiny without external interference.

To this, British philosopher and physician John Locke had already established the economic aspect of freedom and liberty, claiming the right and respect for private property as an individual freedom.¹²⁶ Mill’s and Locke’s definitions include freedom to act and freedom from coercion, a concept Russian-British historian and philosopher Isaiah Berlin later codified in negative liberty meaning freedom from interference and positive liberty denoting freedom to be and act according to the personal conscience as long as it is not conflicting with other peoples liberties or the law.¹²⁷

Liberty is a social invention, constructed to accommodate differing individual needs and desires into a larger system of collective good. The concept is ripe with

¹²⁴ Mill, John Stuart. *On Liberty*, 16-17.

¹²⁵ Valéry, Paul: *Reflections on the World Today*, 45.

¹²⁶ Locke, John: *Two Treatises of Government*, 135.

¹²⁷ Berlin, Isaiah. *Four Essays on Liberty*, 122-134.

compromise and is difficult to entirely separate from notions of equality and sovereignty, and problematical to reconcile with order and sometimes justice.¹²⁸

In contemporary Western societies, civil liberties have morphed into human rights, spanning such diverse issues as the right to life, freedom from torture, freedom from slavery and forced labor, the right to liberty and security, right to a fair trial, the right to defend one's self, the right to privacy, freedom of conscience, freedom of expression, freedom of assembly and association, and the right to marry and have a family.¹²⁹ It is quite evident from the whole Western discourse of liberty and freedom that the reference object is the individual human being who is granted and guaranteed specific rights. This is at odds with value systems from other civilizations where the family, tribe, clan or society (*Umma*) is the referent object.

The social contract is based upon loyalty and the state nourishes its legitimacy from this loyalty. The liberal rights are paid for by duties and according to Scruton, “the call to duty is effective only in the context of a common loyalty.”¹³⁰ Thus, loyalty to the social contract and in the West, by extension, to the territorially bound state, is possible only through a vivid bond of membership within the framework of the social contract. This bond is sensitive to how well other associates respect the secular law and adheres to the required duties. It is therefore important for a strategist to think in terms of factors that furthers or degrades the existing societal feeling of loyalty and not exact duties that are out of whack with popular expectations.

The bonds of the Westerns society are negotiated, not divinely given, and thus rest upon the contractual mechanism described above. If the mechanisms are altered too rapidly or with too little forethought, the Western enterprise may suffer damage that takes time to repair. This, of course, counteracts the strategist’s quest for continuous advantage and limits the freedom to marshal the context. Any marshaling of context should be made with ample consideration of how well aligned it is to the domestic value system.

¹²⁸ Valéry, Paul: *Reflections on the World Today*, 54.

¹²⁹ General Assembly of the United Nations. *The United Nations Universal Declaration of Human Rights*.

¹³⁰ Scruton, Roger. *The West and the Rest: Globalization and the Terrorist Threat*, 68.

The importance of national core values can be easily forgotten in rapidly developing situations, where the strategist strives to identify national interests.

In summary, the liberal core values require a mechanism that can incorporate and mitigate tension between the interests among the citizens and between the citizens and the state. The social contract constitutes this vital mechanism. The examination of Western values reveals moreover that democracy is instrumental to the core values, rather than being a core value in its own right.

The basic values underwriting Western civilization are four; individual freedom and liberty, sovereign representation of the general will through consent, rights of property and the market as the deciding mechanism in economy. The social contract and the liberal values form the internal boundaries to strategist freedom of action. A strategy that deviates from societal values risk upsetting the delicate balance between represented and representing and alter the foundation of the social contract. In contrast, a national security strategy that garners the support of its society is likely to be effective from the internal perspective. To this end, the national interest, as it applies to a particular situation, is much easier to distill.

NATIONAL INTEREST

There are many ways to interpret national interest and there is much confusion to what it exactly means, and how it should be employed in politics and foreign policy. Much of what this paper defines as state goals or national core values are often lumped together under the national interest label. However, this is not a helpful distinction for strategists.

This paper regards state goals and core values as enduring objects. The state goals are relatively constant over time, while core values change gradually over time and are dependent on the particular society. National interests by contrast, are in this paper

defined as highly contingent on the context surrounding each particular situation in which they are viewed.¹³¹

The imperative lesson for the strategist regarding this distinction between enduring and changing objects is that elites must align the current national interest with the permanent state goals and national core values. Societies can probably tolerate somewhat of a gap between current national interests and state goals and core values for shorter periods of time and when none of the enduring objects are at stake. However, as the Vietnam War clearly demonstrated for the USA, if the gap persists over time between what the elites of the society defines as national interests and what the society considers enduring goals and values, support for a certain policy wanes over time.

Formulation of national interests frequently belongs to the elites of a state and is constructed through a complex process of negotiation within the politics. At one level, national interests form an end state where states believe they accrue continuing advantage. At another level, national interests serve as ways and means for achieving other strategic outcomes. National interests and values are spheres in which strategists operate and strategies are developed by those strategists.

Ideally, national interests are clearly declared and justified in policy. The state goals and national core values, on the other hand, mainly reside in society and are tied to intangibles such as culture, religion and norms. They are constant, lending predictability and a sense of security and belonging to the citizens.

There is a tension between managing a changing context and devising strategies fully in concert with national core values and way of life. Politicians and strategists are a product of their society, which means that they embody most of the norms of their society. They are, however, responsible for managing change, often for the sake of continuation of enduring objects.

Change can be initiated from within the political unit, but more commonly from outside because of changes to the strategic context. In that responsibility, and perhaps especially for the strategist whose duty it is to marshal context for continuous advantage,

¹³¹ Wendt, Alexander. *Social Theory of International Politics*, 233.

it can be tempting to find strategies that disconnect from tradition. Sometimes this is done out of ignorance to the very existence of enduring societal goals and values, sometimes it seems opportunistic or even necessary to espouse changes that run contrary to the enduring goals and values ingrained in the society.

The compatibility requirements between national interests, state goals, and national core values must be high in times where the international strategic context allows choice. When the international strategic context constrains choice because of the immediacy of a perceived existential military threat, survival goals may override the core values in importance.¹³² Yet, in less severe situations, political leaders and strategist are often caught in a dilemma. In foreign policy, politicians and strategists must often bear the burden of making unfortunate trade-offs between stability and principles.¹³³

For example, the West has long been fixed in a dependency on oil to serve as the main liquid fuel in the transportations sector. Because of technological limitations, the West has had few choices to replace oil without significantly harming the goal of economic prosperity. Consequently, they have felt compelled to support governments in oil producing states that operate under very different governing principles to those desired by Western norms and values.

Stability has for the most part prevailed over principles because to the Western societies, the state goal of economic prosperity is more important than the national core values governing the political and societal systems. However, the risk for global warming and the advent of global media may gradually change this particular calculation in Western societies. Because the impact of enduring goals and values is very real, the ends do not always justify the means, even if there seems to be no other way around the dilemma.

Understanding what is in the interest of the state can be difficult in a specific situation. Remember that the strategist must make much of little and use inductive thinking in order to properly integrate current events with a larger picture that connects

¹³² Wendt, Alexander. *Social Theory of International Politics*, 237.

¹³³ Bull, Hedley. *The Anarchical Society: A Study of Order in World Politics*, 89.

the present with the past and the future. The strategist does not have the advantage of hindsight, so beneficial to the historian, but must act within a framework of limited information, time constraint and inadequate resources.

Thus, to properly choose what is in the interest of the state can be a highly complicated affair. Valéry concludes that it is easy to misconstrue a state's national interest for its aspirations.¹³⁴ The national interests are a step on the way to realizing state goals. They seldom, if ever, embody the fulfillment of a state goal as such. Another variable that shapes a state's perception of national interest is whether the state perceives in its interest to maintain or change its position or the structure of the international system.

A basic difference between states in determining what is in their national interest is how they perceive their position in the international system and consequently, if they want change or continuity. States who perceive that the current structure or system is to their advantage strive to maintain the current structure or system. These types of states are defined as status quo states. On the other side of the scale are states that determine that the existing structure or system works to their disadvantage will try to change the prevailing order. These latter types of states are challenger states.

Perception is a key word because in the end, the measurement is subjective rather than objective. Some of the measures of strength are objective and comparable across different states, such as size of population, economic gross domestic production and natural assets, but other denominators of strength are more difficult to compare. Examples of the latter are inventive human capital and whether a large service sector is better than a production sector with all else being equal.

The question is also made complicated by the fact that measurements and comparisons can be made in relative or absolute terms. A state can objectively conclude that its power has increase over a certain time period in absolute terms, but if it perceives that other states have grown comparatively more powerful over the same period of time, it sees its relative power decline.

¹³⁴ Valéry, Paul: *Reflections on the World Today*, 32.

In realist theory, relative measures of strength are more important than absolute because successful competition is key to survival. The North-South debate is often framed in relative terms. States in the southern hemisphere view themselves as systematically disadvantaged by the international political and economic structure, even though they grow in power in absolute terms over time.

The difference in perspective on the existence is another important aspect to consider for strategists. The question of marshaling context is very different if the aim is to challenge the existing order and to reinforce or mitigate the dynamics of the international environment in order to produce change, compared to if the intent is to reinforce and mitigate international dynamics to produce stability and continuity. This fundamental difference in perspective is what produces conflict or cooperation between states in the international system.

Status-quo states assess their strategic context and devise a strategy that preserves their goals, values and interests with acceptable risk and to the lowest possible cost.¹³⁵ They prefer cooperation because that is less costly than conflict. Well established regimes and alliances reduce the transaction costs of the relationship because the rules and norms governing the regimes and alliances increase predictability and allow mutual trust to develop over time. States thus have to devote less energy and costs to monitor the intent and actions of other states.

The opposite is true for states wanting to replace continuity with change. If they experience exclusion or disadvantage from existing regimes they may find change through conflict less costly in the long run compared to a continuation of the current situation of disadvantage.

One of the great challenges for the West in the coming years will be to accommodate Chinese and Indian desires for change. These two states are of special concern because they are increasing in power both in relative and absolute terms. If India and China perceive themselves as disadvantaged by existing institutions, they will want

¹³⁵ Posen, Barry R. *The Sources of Military Doctrine: France, Britain, and Germany between the World Wars*, 69.

to promote change. If their demands are not met in some way, conflict may become an attractive alternative when one or both of the states determine that they are powerful enough to successfully challenge the existing system.

CONCLUSION

This chapter has discussed the goals common to most states, how they are derived from national core values and how they translate into actionable national interests. In addition, it contained an argument of whether a state wants to maintain the international system the way it currently is, or if the state wants to challenge and change the function of the existing system or perhaps change it entirely. The present chapter constitutes the compass, pointing out the true north for each particular state that enables the creation and sustainment of a national consensus regarding the role that a state plays in the world and why.

Chapter 4 began with an exploration of three common state goals. These are security, prosperity and way of life.¹³⁶ The first two national goals, security and prosperity, are basic needs of all societies, and generally must be fulfilled to an adequate degree before a society is ready to assume other goals. The national goals constitute the equivalent to a destination of a journey. The second section discusses the concept of core values and how they influence national security strategy. The third goal, preserving or developing a desired way of life is highly contingent on the national core values. The core values constitute some of the boundaries of strategy, in that they inform customs, norms and rules for acceptable behavior.

The third section of this chapter explored the concept of national interests. The argument being made was that the ultimate goals of the state determine its national interests. However, the ways open to the strategist are bounded by the national core values. National interests are long-term as well as determined for every specific situation

¹³⁶ George, Alexander and Robert Keohane. "The Concept of National Interests: Uses and Limitation" in George, Alexander, *Presidential Decisionmaking Foreign Policy*, 217-238.

that arises. The national interests must be aligned with the ultimate goals of the state and its core values to be cogent and effective.

Finally, the fourth section departed from each state's relative situation and position in the international system. The section argued that a state that benefits from the current system strives for minimal change, i.e. status quo. Conversely, states that perceive themselves as being at disadvantage or hindered in the quest for their ultimate goals, will challenge the existing system and strive to change it such that it becomes more advantageous for them, especially if they themselves are rising powers in the international system.

The essence of this chapter is the importance of the connection between the present, the past and the future. British political scientist Christopher Coker writes of the importance of a relevant end (*telos*) in tune with the values system (*ethos*) of the society.¹³⁷ The social contract is the most important mechanism for Western states for balancing the inherent tension between the private and the collective in terms of freedom, rights and duties.

The social contract in this form was devised by Rousseau to protect the core national values of Western societies at the same time as it releases as much private initiative and creativity as possible for the furthering of the societies individual and collective good. The values, secular in Rousseau's version of the social contract, are expressions of Christian beliefs as Spengler and Toynbee remind us of.

The national core values are thus deeply embedded in culture, traditions and norms of the society and have developed over the last two millennia in the West. This implies that the values change slowly and gradually over long periods of time. The values are so important to the democratic institutions that Coker claims the institutions cannot be sustained for long if the values and the moral code of conduct are degraded.¹³⁸

¹³⁷ Coker, Christopher: "Rebooting the West: The US, Europe and the Future of the Western Alliance", *Royal United Services Institute Whitehall Paper no. 72*, v.

¹³⁸ Coker, Christopher: "Rebooting the West: The US, Europe and the Future of the Western Alliance", *Royal United Services Institute Whitehall Paper no. 72*, 5.

For the strategist entrusted with marshaling context to continuous advantage, the values and the state goals place certain restrictions on the strategist's freedom of action. The strategist belongs to the elite of the society, chosen to represent the general will of its citizens. The duty of the strategist is thus to devise strategies that are in line with the citizen's understanding and desires. American political scientist Richard Ned Lebow argues that the strongest incentive for states to make strategic decision conformal to that of its society is because, in his estimation, policies aligned with the society are much more likely to succeed than if they deviate significantly.¹³⁹ "With legitimacy comes influence."¹⁴⁰

The goals common to most states are quite intuitive. The goal of security becomes more complex and multi-faceted when we view the state by its component parts, but this way of defining the state corresponds well with the importance of core values. In Buzan's analysis, the state consists of a physical base that comprises of its territory and population. In addition, a state must have institutions that govern the territory and through the legal system its population. Finally, the population must share some idea of common belonging to lend legitimacy to the institutions governing the state.

As the previous analysis of the national core values indicates, there is a strong and even causal connection between the institutional and ideational component parts of the state. These two component parts reside within a state's society, which also form and embody the national core values. Buzan's definition of the state is necessary to enable the connection between the state and its society and it demonstrates the relevance of Coker's and Lebow's argument of how important it is for the success of a strategy to be in line with the core national values. A strategy without a moral compass seems destined to fail.

Coker provides another useful clue as to why strategies sometimes do not reflect the values undergirding the society it represents. He uses British international relations specialist, Philip Windsor who distinguishes between values that remain virtually

¹³⁹ Lebow, Richard Ned. *A Cultural Theory of International Relations*, 495.

¹⁴⁰ Lebow, Richard Ned. *A Cultural Theory of International Relations*, 495.

unchanged and ethical norms that always are changing.¹⁴¹ It is a vital duty for the strategist to properly distinguish between norms and values in order to not get lost among the trees in the forest of strategic choice. This chapter has provided an insight to just what these values are from the perspective of Western civilization.

The fifth and final chapter develops a conceptual model for how to devise successful grand and national security strategies. It ties the global trends from Chapter 3 and how each state views the effects of the global trends through the lens of state goals, national core values and national interest to the concept of grand strategy and national security strategy as defined in Chapter 2.

¹⁴¹ Coker, Christopher: "Rebooting the West: The US, Europe and the Future of the Western Alliance", *Royal United Services Institute Whitehall Paper no. 72*, 84.

Chapter 5

A CONCEPTUAL FRAMEWORK FOR NATIONAL SECURITY STRATEGY

The first four chapters were concerned with identifying the significant facts to grand strategy in general and national security strategy in particular. The aim of this chapter serves, as Thomas Kuhn puts it, to marry the facts with theory and articulate a theoretical framework.¹ The facts that are married to the theory are the concept of national security strategy and grand strategy as defined in Chapter 2, the map that Chapter 3 built on a foundation of global trends, and the compass of Chapter 4 with state goals, national core values and national interest. The purpose of this chapter is to integrate the concepts from the previous three chapters in order to build a theoretical framework that permits development of a cogent and coherent national security strategy.

The theoretical framework presented by this chapter is specific about precisely how a national security strategy should operate to enable change or continuity in a complex and volatile environment. It also provides the overarching framework necessary for the application of grand strategy to a particular situation.

Without a clearly articulated overarching national security framework, with its long term goals and long term consideration of the future, the grand strategy devised and applied to each particular situation may be highly inappropriate and work against the long-term goals of the state. It is important for the strategist to understand that continuity should exist between a specific grand strategy and the national security strategy. This chapter provides the necessary theoretical framework for the development and application of national security strategy and to how the national security strategy should guide and provide direction for grand strategy designed and applied to a particular situation.

¹ Kuhn, Thomas S. *The Structure of Scientific Revolutions*, 34.

In addition to providing a theoretical framework, this chapter also sets out to remedy two distinct deficiencies common to existing literature on strategy. The first problem is that most of the literature on strategy with respect to the state is limited to military strategy. Research illuminated a need to recapture the concept of strategy and root it firmly at the grand strategic level, both in the academic and practical discourses.

The second problem is that most of the literature on strategy focuses on threats and neglects to think in terms of opportunities. If the international system undergoes a significant degree of change, then one can find opportunity whether the change is for good or ill.

However, a particular state may not be able to reap benefits from systemic change without significant adaptation. The state should think in terms of how it best can adapt itself to accommodate and reap the most benefits from changes that carry a positive potential. Because the environment is dynamic and volatile, the strategist must be on constant vigilance to and challenge and compare underlying assumptions to reality. A threat today may turn into an opportunity tomorrow, or the other way around.

What a particular state views as a threat or an opportunity depends on its relative strengths and weaknesses compared to other states and in relation to the effects that the global trends give rise to. Precisely how relative strength is measured in the international system is as much a matter of perception as it is a function of an assessment of objective facts.

Threats and opportunities are closely linked to the state goals, national core values and national interest. It is a highly subjective area, where desired goals and core values determine the worldview of a particular state and colors understanding of exactly what constitutes a threat or an opportunity. A logical conclusion of the mix of objective and subjective, as well as absolute and relative factors, is that a threat to one state may be an opportunity to another.

This is another important insight to the strategist, to not fall for the temptation to mirror image competitors and model themselves after others. There is a significant possibility, indeed verging on high probability, that other states view strengths,

vulnerabilities, threats and opportunities in different terms from the state that the strategist in question represents.

Moreover, competitors are better represented in plural than singular and all have their differences in strategic disposition because of difference in how they assess what constitutes strengths, vulnerabilities, threats and opportunities. Preoccupation with one's own worldview and underlying calculation is indeed a common grand strategic mistake that Gideon Rose, editor of *Foreign Affairs*, warns about.

His example of US and North Vietnamese calculations during the Vietnam War is telling, especially as it concerns not only politicians and strategists responsible for making US policy and strategy, but also historians, who Rose asserts focus almost exclusively on US objectives and calculations at the expense of those of the adversary.² With multiple players, this interaction is of course what makes the game of grand strategy highly complex.

The theoretical framework suggested in this chapter is designed to reduce uncertainty in the anticipation of the future by focusing on variables that change slowly over significant time spans, and at the same time have disproportional effects on how the future develops. The global trends and their associated drivers constitute the terrain in the map of the future, precisely because they are estimated to influence the future more than any other set of factors.

The chapter begins with a description of the mechanics of the framework. It includes the definition of strategy from Chapter 2, because that definition drives the model representing the theoretical framework. It also demonstrates how strategy should guide change in order to obtain transformation or continuity, depending on whether the state is a status quo state or a challenger state. Furthermore, the mechanics include a description of specifically how each trend is the result of one or several drivers, and how each trend produces various effects. Finally, the section concerning the mechanics of the framework concludes with a prescription of how national security strategy should

² Rose, Gideon. *How Wars End: Why We Always Fight the Last Battle*, 195.

reinforce or counter the drivers, and mitigate or support the effects produced by the global trends.

The second and last sections of this chapter apply an evaluation construct developed for business assessment, the SWOT model, and demonstrate how a state can evaluate the potential future effects that could arise from the global trends presented in this analysis.³ The assessment has both relative and absolute components and discusses the stand a particular state will take on the effects produced by the global trends, whether those effects are desirable or undesirable.

Each of the elements in the SWOT analysis is explained in this section. The section describing the assessment process closes with a discussion about how long-term national security strategy supports grand strategy developed and applied to a specific situation. Their mutual relationship is vital to the success or failure of the applied grand strategy.

MECHANICS OF A THEORETICAL FRAMEWORK

The purpose of this section is to demonstrate how national security strategy marshals context for continuous advantage by affecting the drivers and the effects of global trends. This section provides a model for the theoretical framework, illustrating precisely how the facts presented in earlier chapter are integrated in order to operationalize the national security strategy.

Chapter 2 suggested a definition of national security strategy that accurately captures the objective, purpose and role of long-term and semi-permanent grand strategy. The definition is repeated below because it is central to the design of the model.

³ SWOT – Strengths, Weaknesses, Opportunities and Threats.

The role of grand strategy is to systematically marshal context to reinforce desired change while mitigating unwanted change in order to secure continuity or obtain change in an open system. The ultimate objective is to improve or maintain security, increase the wealth of the state and protect the chosen way of life.⁴ The purpose of grand strategy is to ensure a favorable continuation of events.⁵ However, for some states, the purpose of strategy can be to obtain a less unfavorable continuation of events. Finally, the essence of strategy is to explore and decide on different ways to use available means in pursuit of ends determined by politics and ideally expressed in policy.⁶

Chapter 3 argued that global trends are an expression of context and strategic environment and appropriate a foundation upon which an uncertain future is best anticipated. In addition, Chapter 3 also explained that trends are descriptors of patterns of change. Global trends do not suddenly burst onto the global scene, but are the result of what Keynes and Toynbee convey as slowly developing forces, only gradually making their way into decision makers' conscience. These forces are the drivers behind the global trends and they are often, or perhaps always, multiple. In the system that life on earth operates within, social, biological and physical drivers combine and develop relationships and interdependencies that lead to complexity, even though each of the drivers taken in isolation may operate as linear and thus predictable units.

To complicate matters further, each driver can operate as a force behind more than one trend. For example, communications technologies enable the contemporary round of globalization, but at the same time, communications technology is also partly the driver behind global demographic change since it enables awareness among youth bulges how they might be losing out on many of the benefits of globalization. Both trends share the same driver, and when the driver mixes with other drivers, it gives rise to two distinct global trends, each with its particular set of effects.

Moreover, one global trend can be the driver behind another global trend. An example hereof is global warming. While being a readily identifiable trend in its own

⁴ Bull, Hedley. *The Anarchical Society: A Study of Order in World Politics*, 4.

⁵ Dolman, Everett Carl. *Pure Strategy: Power and Principle in the Space and Information Age*, 5.

⁶ Gray, Colin S. *Explorations in Strategy*, 4.

right, it will also contribute to demographic change in the form of migration, if the effects of global warming approach the reality anticipated by some theorists. The end result of the interdependencies among factors and processes is non-linear, “chaoplexic” behavior.⁷ Chaoplexic behavior is explained in detail in the coming paragraphs. In summary, global trends are in essence a manifestation of several different drivers coming together and forming a coherent pattern, resulting in a certain array of effects.

However, even if it is analytically elegant to think of trends in terms of drivers and effects, the effects can be difficult to anticipate because of the non-linear and complex interrelationships between the drivers. The effects in the previous discussion represent outcomes and consequences stemming from the global trends, as figure three demonstrate. These effects signify how the consequences of global trends affect specific states.

Trends, however, can constitute effects in their own right too. For example, global warming can be a result either of developments on the sun or a consequence of human emissions of carbon dioxide into the atmosphere. The immediate result of either of these two drivers is that planet earth retains more heat than it dissipates. It seeks a balance at a higher mean temperature compared to before and thus experience an average increase in temperature.

The effects portrayed in the theoretical framework below, however, express the consequences of global warming to specific states. This is the domain of the strategist and he or she must think not only in terms of how the global trends will affect their state, but also how it affects other states. Figure 3 explains the relationship between drivers, trends and effects.

⁷ Bousquet, Antoine. *The Scientific Way of Warfare: Order and Chaos on the Battlefields of Modernity*, 182-183.

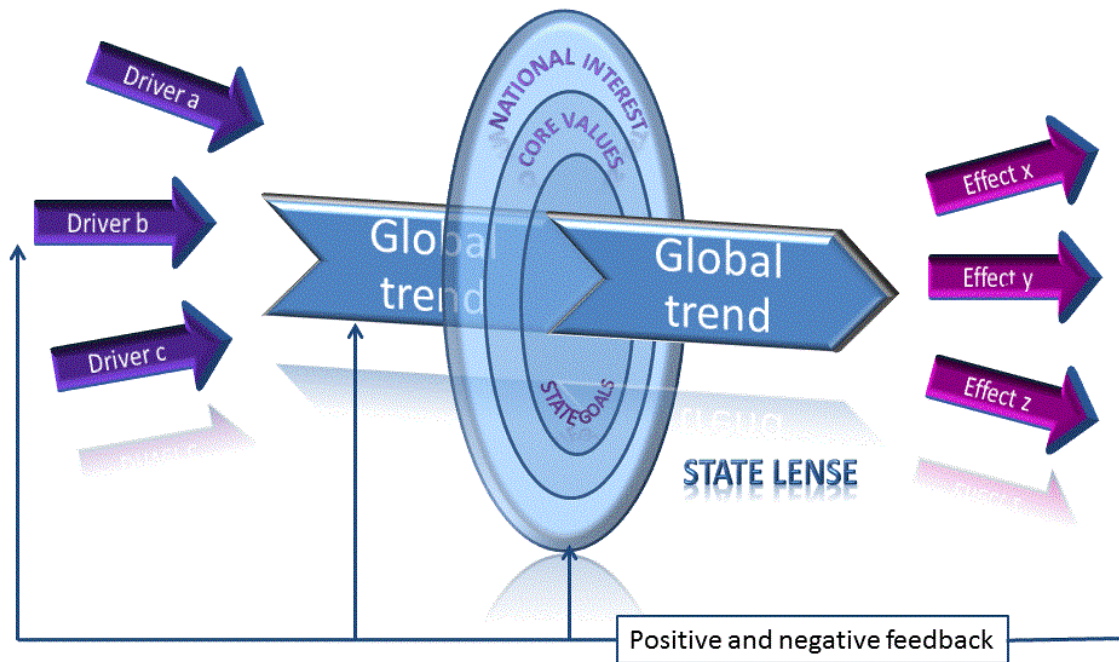


Figure 3: Global trends with drivers and effects.

Author's original artwork.

Precisely how other states will react to the effects stemming from global trends is part of the game for the strategist to understand and anticipate. The main point is that every state views each trend through its particular state's lens, which shapes their interpretation of whether a specific trend will have good or bad effects on their state and how it impacts their strategy. It also influences and restricts the options available to the particular state to respond to the challenges posed by the trends. In essence, the trends, their drivers and effects, and the initiatives and responses of other states form a complex system characterized by chaoplexic behavior, as stressed in Chapter 2. It constitutes the quintessence of the context that a strategist marshals to his or her continued advantage.

In a Meta sense of analysis, chaoplexic theory attempts to bring something of a linear order to what at first seem to be chaotic and stochastic events.⁸ This is exactly the responsibility of the strategist, to see patterns emerge from within complex systems, because patterns do exist in complex systems. The challenge for the strategist is to avoid over-simplification and yet being able to devise theories and strategies that other can act upon.

It is the attempt of this theoretical framework to take advantage of the chaoplexic behavior exhibited by the complex system and formulate a viable solution to the dilemma, applicable to effective and efficient national security strategy. However, this requires a thorough understanding of how chaoplexic behavior operates and what causes it. It is the purpose of the following text to elaborate on the chaoplexity and how the framework takes advantage of this mode of operation.

Chaoplexic behavior characterizing drivers, trends and effects, complicate strategic analysis of the context. It diffuses the perception of change and renders trends difficult to discern early on and challenging to anticipate. This state of affairs largely explains why historians are at a significant advantage compared to strategists. With the benefit of hindsight, patterns often emerge because the availability of information makes it much easier to weigh the importance among different factors much more accurately, compared to an analysis that takes place as events unfold and information is imperfect.

Historical analysis also has the benefit of knowing the outcomes and what happened before and after the analyzed event took place. As a result, historical analysis can accurately connect history to the future, trace emerging patterns to their drivers, and assign appropriate proportion among specific factors. However, chaoplexic behavior is not all negative to a strategist appropriately equipped with imagination and creative skills. A skillful and imaginative strategist can exploit the logic with which chaoplexic systems operate and use this information to his or her advantage.

⁸ Bousquet, Antoine. *The Scientific Way of Warfare: Order and Chaos on the Battlefields of Modernity*, 180.

Chaoplexic behavior emerges when feedback spontaneously reinforces or dampens what would otherwise be a linear behavior. Of course, some systems obtain internal homeostasis, which means stability at a desired level, but homeostasis can only occur in a closed system.

Even though human politics is bounded by earth and as such constitute a bounded system, the density and complexity of international relations and strategy decision-making is an open-ended system from the point of view of a particular state. It is so because no state has control over the entire system, not even over small parts of it. From the viewpoint of a particular state, the international system is open to other actors to introduce or remove energy, as they desire. The open system characteristic is a direct consequence of the anarchy that characterizes the international political system.

The chaoplexic behavior in a system is caused by negative and positive feedback loops that dampen or reinforce disturbances. A negative feedback loop “occurs in a system that responds to disturbances with a stabilizing adjustment in order to guide or return the system to the desired state.”⁹ The negative feedback loop introduces a dampening logic to the system behavior.

Figure 4 displays how an externally introduced disturbance rings out over time because something in the system automatically provides a counterforce that is stronger than the disturbance and over time dampens it back to the systems original homeostasis. This something is clearly coupled to the system, or is an integral part of it, because it does not only provide momentary adjustment to the behavior but also continuously follows the systemic behavior with its dampening logic until the disturbance is completely eliminated.

⁹ Bousquet, Antoine. *The Scientific Way of Warfare: Order and Chaos on the Battlefields of Modernity*, 165.

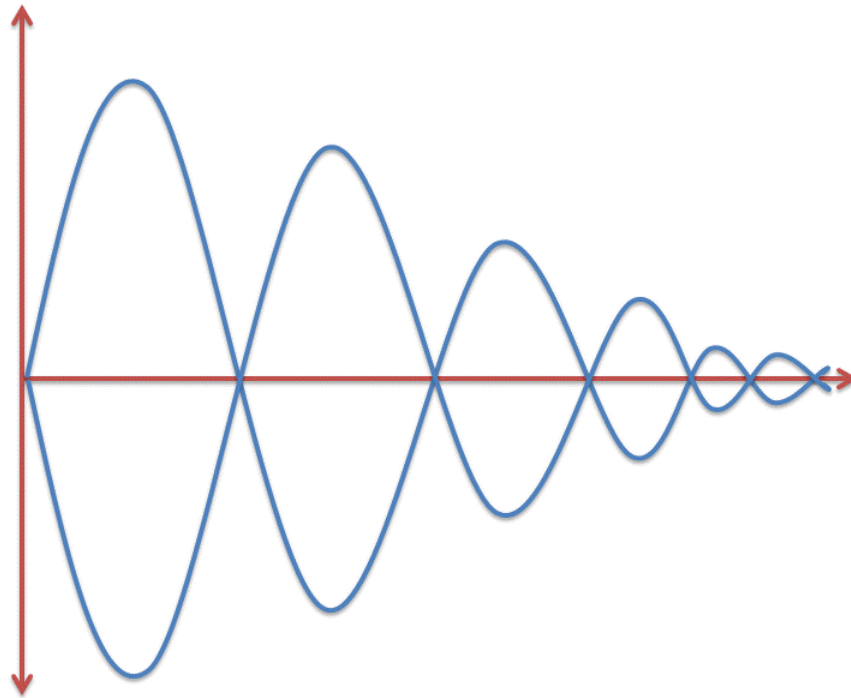


Figure 4. Negative feedback loops.

Author's original artwork.

As is evident from the illustration, a negative feedback loop has a dampening function and drives a system to equilibrium. A change to the system is met with a self-regulatory dampening force that is inherent to the system. Over time, the effect of the disturbance decline. This is quite opposite to how a positive feedback loop operates.

A positive feedback loop, in contrast, “is present when disturbances are amplified and thus move the system away from its point of origin.”¹⁰ The system diverges ever more from its origin over time. The operational logic of the system does not contain a counter force that outweighs the force behind the disturbance. Because the amplifying force is continuous, the system exhibits exponential divergence from its original homeostasis. Figure 5 illustrates the effects a negative feedback loop will have to a complex system in operation.

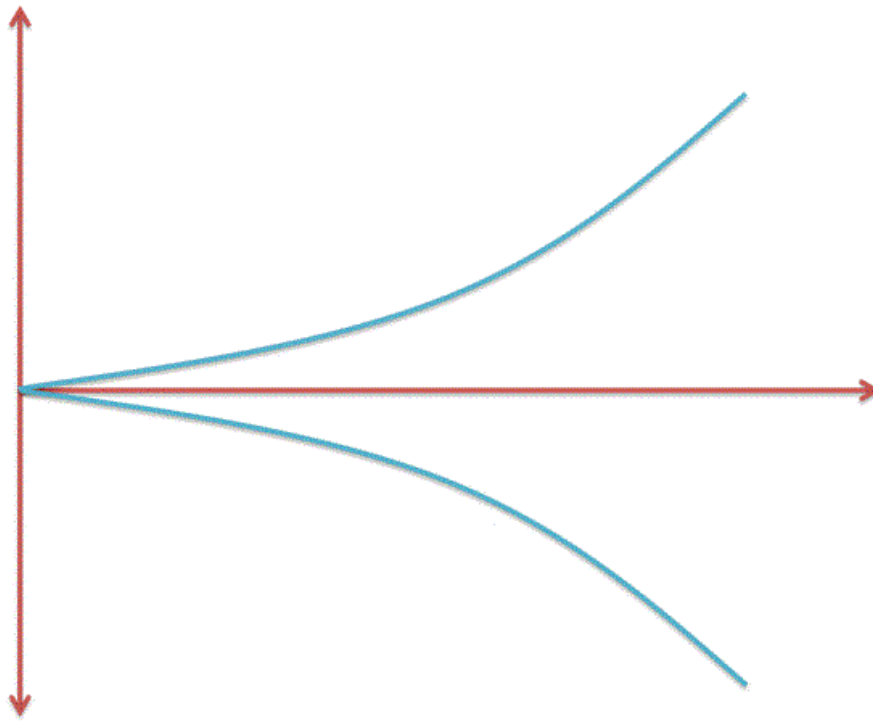


Figure 5. Positive feedback loops.

Author's original artwork.

¹⁰ Bousquet, Antoine. *The Scientific Way of Warfare: Order and Chaos on the Battlefields of Modernity*, 165.

In contrast to the negative feedback loop, a positive feedback loop amplifies disturbances that enter the system from outside. The system will either move into permanent chaos, its destruction or it will find a new equilibrium in a different behavior compared to the system's original behavior.

Belgian cybernetics expert Francis Paul Heylighen and American cognitive scientist Cliff Joslyn have discovered that negative feedback is necessary in order to obtain stability in a system, while positive feedback is essential to grow self-sustainment and self-organization within a system.¹¹

The self-organizing principle underlying complex systems renders the potential for units to adapt to changing circumstances. What Bousquet, Dolman and other writers on strategy infer is that political life among social units can be accurately captured by chaoplectic theory, transplanted from chemistry, physics and mathematics. If this holds true, which it intuitively seems to do with support from Hobbes and Rousseau on spontaneous self-organization within societies, chaoplicity leaves room for maneuver for the strategist. According to Bousquet, most scientists agree that linear logic is the exception in nature, both in a mathematical and a physical sense.

Positive and negative feedback loops provide a strategist with disproportional leverage over events, especially if they are anticipated well in advance through the analysis of global trends. To recapitulate, the trends were chosen as an instrument to anticipate the future. The main merit of thinking in terms of global trends is the hypothesis that the global trends constitute comparatively objective patterns of change, in that they do not contain any unit calculation or action. Furthermore, global trends lead the analyst to factors that have disproportionately large influence of future developments.

In addition, the previous paragraphs argued that a few factors in complex system have disproportionally large influence on the system because of negative and positive feedback loops. Thus, thinking in terms of global trends and feedback should give a strategist instruments and leverage to shape the context to his or her continuous advantage. What the theoretical framework brings to the table is the hypothesis that the

¹¹ Heylighen, Francis Paul and Cliff Joslyn. "Cybernetics and Second-Order Cybernetics", 12.

drivers behind each global trend function as a positive or negative feedback loop in the international system. However, before the chapter dives into the theoretical framework and its possibility to capitalize on systemic advantages, it is prudent to caution the strategist to avoid a contemporary, scientific pitfall.

On a cautionary note, the strategist must display an abundance of understanding of the nature of strategy, the nature of the situations that develop, and imaginative and creative skills to succeed. Chaoplexic theory aims at organizing the actions of interdependent units into coherent patterns. This approach assumes two things. First it assumes that patterns indeed exist and that the system not only operates along stochastic principles, where every action is purely coincidental and has no connection with other actions in the system.

Second, it assumes that interdependencies actually exist among units. It may be both easy and tempting to fall into the trap of thinking that chaoplexic theory transforms strategy to pure science, where continuous accurate prediction is a real possibility. In this vein, it is prudent to carefully consider German philosopher Martin Heidegger's cautioning about the scientific project, such as it developed from Enlightenment, as presented by Bousquet.¹²

Heidegger observes: "Man's ordering attitude and behaviour display themselves first in the in the rise of modern physics as an exact science. Modern science's way of representing pursues and entraps nature as a calculable coherence of force. Modern physics is not experimental physics because it applies apparatus to the questioning of nature. Rather the reverse is true. Because physics, indeed already as pure theory, sets the nature up to exhibit itself as a coherence of forces calculable in advance, it therefore orders its experiments precisely for the purpose of asking whether and how nature reports itself when set up in this way."¹³

What Heidegger tells us is that even within a system, not all units share interdependencies at all times. Events may occur that are free of interconnections to a

¹² Bousquet, Antoine. *The Scientific Way of Warfare: Order and Chaos on the Battlefields of Modernity*, 12.

¹³ Heidegger, Martin. *The Question Concerning Technology and Other Essays*, 32.

particular set of other events. The strategist should be aware of the trap of setting up idealized models of the world and try to calculate interrelations where none exists. Chance is still at play in the international system.

With Heidegger's cautionary tale firmly in mind, the ensuing text elaborates on the advantages inherent in the theoretical framework for national security strategy design. The thesis argues that the proper role for a long-term national security strategy is to identify drivers and effects connected to global trends, and change drivers that lead to undesirable effects, and support effects that are beneficial in relation to state goals, national core values and national interest. This is the true sense of marshaling context for enduring and continuous advantage.

The drivers, global trends and effects are interrelated and have interdependencies as described earlier. A particular driver is commonly made up of different forces and a trend depends on multiple drivers to its shape and expression. The resulting effects in turn affect the drivers, through positive and negative feedback loops.

As a purely hypothetical example, if all states on earth rapidly transfer from carbon sources for their liquid fuel requirements, global warming that was the origin for the transfer to different liquid fuels should theoretically halt its amplified trend and gradually decrease. Thus global warming will slow and theoretically decrease until planet earth has reached a new equilibrium and homeostasis.

In effect, the strategist who can affect global politics in this way inserts energy to the system in order to create and sustain a negative, and dampening, feedback loop that extinguishes the global trend of global warming. The driver of global warming, excessive consumption of carbon-based energy, has disproportionally high leverage over systemic behavior and the strategist should, in theory, be able to use it to his or her advantage.

Of course, the complexity involved in marshaling political decision making clearly demonstrates the need for a long-term view on national security strategy, because not only will the convincing effort require ample preparation time but so will the

adaptation of the societies. Figure 6 visualizes the point of how national security strategy should affect systemic behavior.

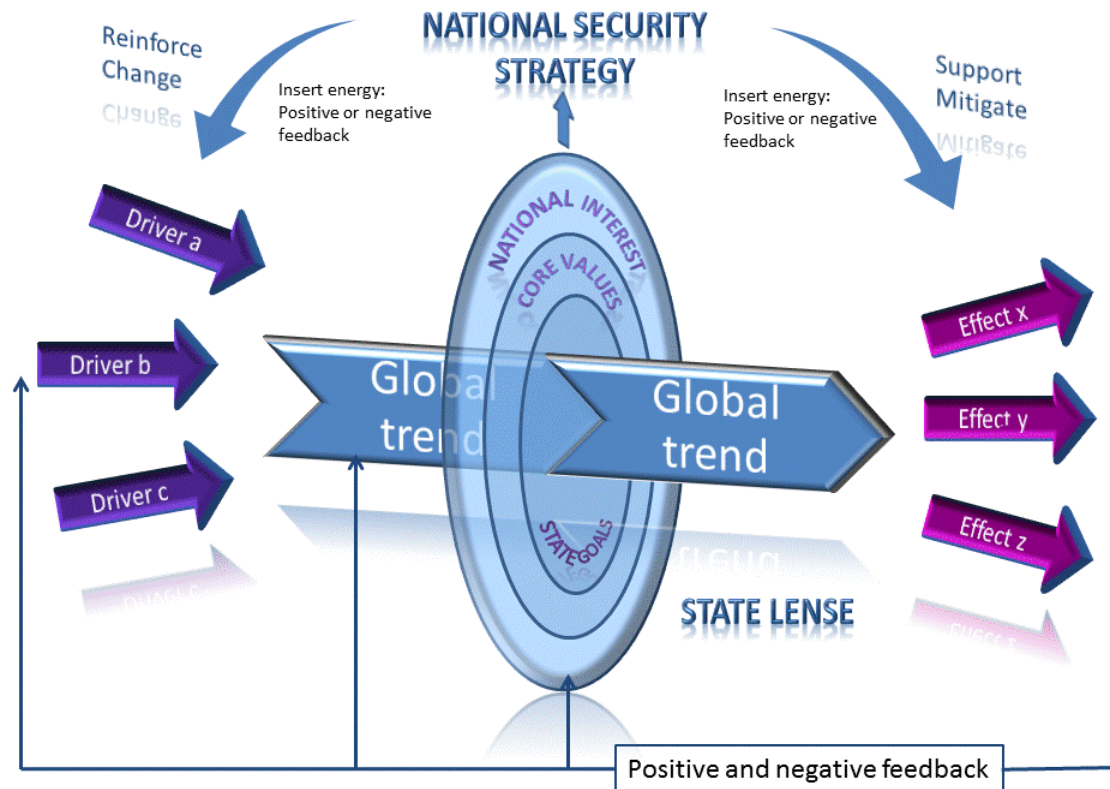


Figure 6. National security strategy in operation.

Author's original artwork.

Because trends operate over long periods of time, a timely identification of the global trends, their drivers and their effects allows the national security strategy to be proactive rather than reactive.¹⁴ This is of course a very desirable situation for a state to be in, but it is only possible if the future is correctly anticipated.

¹⁴ National Intelligence Council. *Global Trends 2025: A Transformed World*, first page in introduction.

Whether the state in question is a status quo state or a challenger state, traditionally determines if the main emphasis is on drivers or effects. A challenger state wants to reinforce change to suit their particular goals and national core values, in order to instill different behavior to the existing system. Alternatively, the challenger state may want to completely replace the current system by a system that serves the goals of the challenger state better. In contrast, a status quo state wants to expend as little resources as it can get away with in order to maintain the system that provides the current set of benefits.

With the approach offered by the present theoretical framework, both status quo and challenger states should be concerned with the drivers as well as the effects. If a state wants to retain status quo and experience more continuity than change in the international system, this model demonstrates a real possibility to do so by reinforcing drivers that lead to a continuation of the system and by dampening or changing drivers that will eventually lead to changes to the system. The opposite is of course true for a state wishing to experience more change than continuity in and to the system.

On the other side of the equation, a status quo state should embrace and support effects that further support the stability of the existing system. However, some effects will lead to undesired change, and a status quo state should adapt itself in time to mitigate effects assessed as bad.

In both situations, it is important to make the connection between drivers and effects because the strategist should devote equal attention to mitigating bad effects and to changing drivers that leads to undesirable effects. Of course, it is equally relevant to adapt the state to reap as much benefit from desirable effects as possible, and to reinforce the drivers that lead to these changes, as it is to suppress ruinous drivers and mitigate undesirable effects.

The previous discussion demonstrates how close the concept of strategy is to change. Strategy itself is an instrument developed and applied to manage change. To tie the theoretical framework to practice, and to leave Plato's cave, the following paragraphs encompass examples to shed real-world light on the theory.

Global warming is a trend that will affect different states in different ways. According to current climate predictions presented in Chapter 3, global warming will have an overwhelmingly negative impact on states close to the equator. According to the theoretical framework, it should be in their national interest to dampen or change the drivers behind the global warming trend.

Options available might be to transform their societies in order to reduce the consumption of forms of energy producing gasses negative to the atmosphere or protect their rain forests. To achieve better effectiveness, they may assemble around a common agenda, which they strive to get accepted in existing institutions and that will gradually reduce the emissions of critical gasses on a global scale. This is an example of how states close to the equator could work to marshal the internal and external context to their own advantage.

At the same time, a realistic strategy should consider the possibility that other states will not cooperate or that the changes to the global climate derive from the sun rather from human activity on earth. A prudent part of their strategy would be to investigate thoroughly all possible ways by which they can mitigate the undesired effects stemming from global warming. Total or partial solutions may be found through technology and societal and behavioral changes among the population. As Chapter 4 disclosed, deep going changes to a society happens only gradually over long periods. The importance of a long perspective in time, which grants timely adaptation that does not lead to societal disruption, is a vital component to national security strategy.

In contrast, states residing far north in the Northern hemisphere, may actually benefit from climate change, at least in the short term. Vast areas of land become much friendlier to human settlement and the construction of infrastructure. Canada and Russia are two states that immediately come to mind.

Huge, currently semi-permanently frozen parts of their territory will become much more accessible and productive to their state goals. Canada's and Russia's national security strategies should thus devote substantial amounts of thinking about how these

two states can reap most benefits from what on a global scale is a thoroughly negative development, but for these two states may present itself as an opportunity.

A problem common to both Canada and Russia is a relatively limited population compared to the land areas under their sovereign jurisdiction. A way to remedy this structural problem is to either encourage higher birth rates among the existing population, or to take advantage of another global trend, migration. As an experiment in thought, Canada could try to attract people of Mexican origin while Russia can tap into Africa, the Middle East and perhaps China. However, migration will create other effects, effects that the states acting in accordance with the present theoretical frameworks should be well equipped to anticipate.

Furthermore, a warmer climate will open vast spaces of ocean up north, in the vicinity of both Canada and Russia. This would be another dimension of the same opportunity that both countries, through a long-term national security strategy, translated to proper grand strategy and planning, can take advantage of. It is again a question of establishing adequate infrastructure and enticing people to populate strategic points along the coast.

It may also be a question of establishing international business relationships as soon as possible, to pave the way for commercialization and trade in the region. Perhaps Canada and Russia have common interest where cooperation may pay off. Because the two states are different, they probably want to begin establishing regimes right away to permit as much time for learning as possible, before cooperation must function smoothly, and so be ready to do business with other states and multinational corporations.

However, another consequence of the opening up of habitable space in the far north is likely competition among states and multinational corporations. As the global trends demonstrate, many geologists anticipate that the area currently covered by permanent ice is estimated to hold large deposits of natural resources in the form of oil, natural gas and fish.

Since the expanses north of Canada and Russia's international waters are unregulated through sovereignty, competition takes place in complete anarchy. If no

international regimes exist that are accepted by all stakeholders, and if the regimes have not yet been in place long enough to produce norms governing competitive behavior, IR-theory and history suggest that part of the competition will risk taking on a military character.

A prudent national security strategy should anticipate a militarization of the conflict and although being very aware of the dynamics behind the security dilemma, prepare for a military posture of deterrence, and avoid any escalation in order to contain competition within the economic and political security sectors. After all, both Canada and Russia have significant advantages over other states competing in the area, because of their long territorial borders and comparatively short distances to their societal centers of strength. As American Professor in international relations, Christopher Layne puts it: “Grand strategy is like real estate, location matters.”¹⁵ This is certainly the case if the two states adequately prepare the infrastructure in the region.

These real-world examples concerning Canada and Russia demonstrate another feature of the drivers, trends and effects. It is clear that both the drivers and the hypothetical strategies discussed here are multi-faceted and spans over physical, biological, societal, economic, political, psychological, informational and military realms. It truly speaks to the inter-disciplinarily nature of strategy.

The responses suggested above extend across all available instruments of power and speak to the importance to properly marshal context for continuous advantage. The strategic responses furthermore have an external as well as an internal component. Finally, the example also demonstrates how important it is for a national security strategy to be proactive rather than reactive. A reactive strategy is by nature more constrained than a proactive strategy and the strategist will experience much more difficulty in shaping and marshaling the context to their advantage.

Obviously, a proactive national security strategy with a long time horizon is not a guarantee for success. Situations, even if perfectly anticipated, cannot be fully remedied

¹⁵ Layne, Christopher. *The Peace of Illusions: American Grand Strategy from 1940 to the Present*, 20.

in advance. Other actors have their own agendas and will seek to maximize their advantage.

In a competitive, dialectic environment that means that their strategy may run counter to the strategies of the other competitors in order to prevent the other competitors from reaching their goals at the expense of their own objectives. The action and reaction pattern that will unfold as events develop requires applied grand strategy that is in concert with the long-term national security strategy. What a prudently and timely developed national security strategy can accomplish, is to significantly improve the probability for success and reduce potential costs as much as possible.

However, the strategist must be aware that by promulgating the national security strategy in advance, they not only shape the environment and marshal context, but that they by doing so affect the calculus of other competitors, who have opportunity to change their strategy.¹⁶ This Heisenberg's dilemma, where the observer by the mere act of observing alters the process studied and thus the future, is of course amplified by the fact that the strategist is not only content to observe, but intentionally strive to shape events to the advantage of his or her own nation.

It is important that the strategist is conscious of the fact that his or her own actions will become part of the situation as it unfolds, and that they are complicit in triggering and exacerbating the complexity of the situation by doing so. The ability to anticipate the perceptions and reactions of the other competitors cut to the heart of the art of strategy, and it speaks to the fact that the strategist must master abductive thinking in order to make much out of little.

The ability to apply inductive and abductive thinking, for reasons clarified in Chapter 2, to understand thoroughly the nature of a situation and the reactions of opponents enables the strategist to follow one of Sun Tzu's most important acumens: to conquer by strategy and attack the enemy's' plans.¹⁷ To reiterate, creative and imaginative thinking about the opponent's opportunities for action is a discipline well

¹⁶ Yarger, Harry R. *Strategy and the National Security Professional: Strategic Thinking and Strategy Formulation in the 21st Century*, 43.

¹⁷ Griffith, Samuel B. *Sun Tzu: The Illustrated Art of War*, 116 and 118.

supported by thinking in terms of scenarios, once the national security strategy is in place. In a chaoplexic environment, attacking the enemies' strategies requires an understanding of the future environment, a gap that global trends serve well to fill.

The global trend analysis identifies drivers, trends and effects, which have the potential to lead the strategist to ask proper questions about the future. The strategist should in the next step of the process be able to utilize those drivers that have disproportional influence on the future, and because of chaoplexity, have a higher degree of leverage on the development of a particular trend than other drivers. The drivers with a high degree of leverage are used to marshal the context to continuous advantage, through their negative or possible feedback loops. However, the strategist must first determine what effects are desirable and which are undesirable. This leads into the second part of the theoretical framework, the determination of strengths and weaknesses, as well as threats and opportunities.

ASSESSMENTS

Each of the global trends will have effects that affect different states differently. The particular state determines, through its strategic lens defined by its state goals, national core values and national interests, which effects have positive consequences and which effects have negative impact on that state.

The main theme of the section covering assessments is the marriage between international relations theory and a business theory of how to assess one's strategic position in a system. The SWOT model is an advantageous instrument to use for assessing a state's strategic position.¹⁸ The SWOT model compares internal and external strengths, weaknesses, opportunities and threats. The other important contribution of this section to strategic theory is the recognition of the fact that the future not only holds threats, it promises opportunities as well.

¹⁸ The SWOT model is usually accredited to Albert Humphrey at Stanford University.

The SWOT analysis is a structured method to come to grips with in what strategic position a particular state will be in at a determined point in the future. It has an internal and an external dimension.¹⁹ Strengths, weaknesses, opportunities and threats constitute four distinct perspectives, through which a state's relative advantage or disadvantage is assessed.

The four perspectives highlight different characteristics of the state and its environment in order to compare its strategic position in relation to that of other states. Strengths and weaknesses are mainly internally focused while threats and opportunities reside chiefly in the external context.²⁰

The ensuing assessment process should be guiding strategic thinking and ask well-defined questions of important perspectives of the future.²¹ The end result of the SWOT analysis should focus on the competitive advantage of the state.²² It maps the room for maneuver available to the strategist, as well as the range of uncertainty that exists in a future point in time.²³ Figure 7 exemplifies a SWOT model.²⁴

¹⁹ Hiebert, Murray and Bruce Klatt. *The Encyclopedia of Leadership: A Practical Guide to Popular Leadership Theories and Techniques*, 76.

²⁰ Reading, Clive. *Strategic Business Planning: A Dynamic System for Improving Performance & Competitive Advantage*, 330.

²¹ Heijden, Kees van der, Ron Bradfield, George Burt, George Cairns and George Wright. *The Sixth Sense: Accelerating Organizational Learning with Scenarios*, 235

²² Fahey, Liam and Robert M. Randall. *Learning from the Future: Competitive Foresight Scenarios*, 345.

²³ Ringland, Gill. *Scenario Planning: Managing for the Future*, 47.

²⁴ School of Advanced Military Studies. *Art of Design: Student Text, Version 2.0*, 296.

Example: TOWS Strategic Alternatives Matrix

	External Opportunities (O) 1. 2. 3.	External Threats (T) 1. 2. 3.
Internal Strengths (S) 1. 2. 3.	SO <i>"Maxi-Maxi" Strategy</i> Strategies that use strengths to maximize opportunities.	ST <i>"Maxi-Mini" Strategy</i> Strategies that use strengths to minimize threats.
Internal Weaknesses (W) 1. 2. 3.	WO <i>"Mini-Maxi" Strategy</i> Strategies that minimize weaknesses by taking advantage of opportunities.	WT <i>"Mini-Mini" Strategy</i> Strategies that minimize weaknesses and avoid threats.

Figure 7. TOWS Strategic Alternatives matrix.

Source: School of Advanced Military Studies.

It is important to remember that strategy has a temporal aspect to it. The SWOT analysis is appropriate both for long-term national security strategy and current, applied grand strategy. Because the future will have continuities from the past embedded in it, the applied grand strategy and the national security strategy must provide a bridge from the past to the future.²⁵ Thus, the applied grand strategy and its defining national interests must be in concert with the state goals and national core values of the national security strategy. As Chapter 4 demonstrated, the national security strategy must be coherent with the past, from which the particular state springs. Figure 8 highlights the relationship between applied grand strategy and national security strategy.

²⁵ Yarger, Harry R. *Strategy and the National Security Professional: Strategic Thinking and Strategy Formulation in the 21st Century*, 14 and 22.

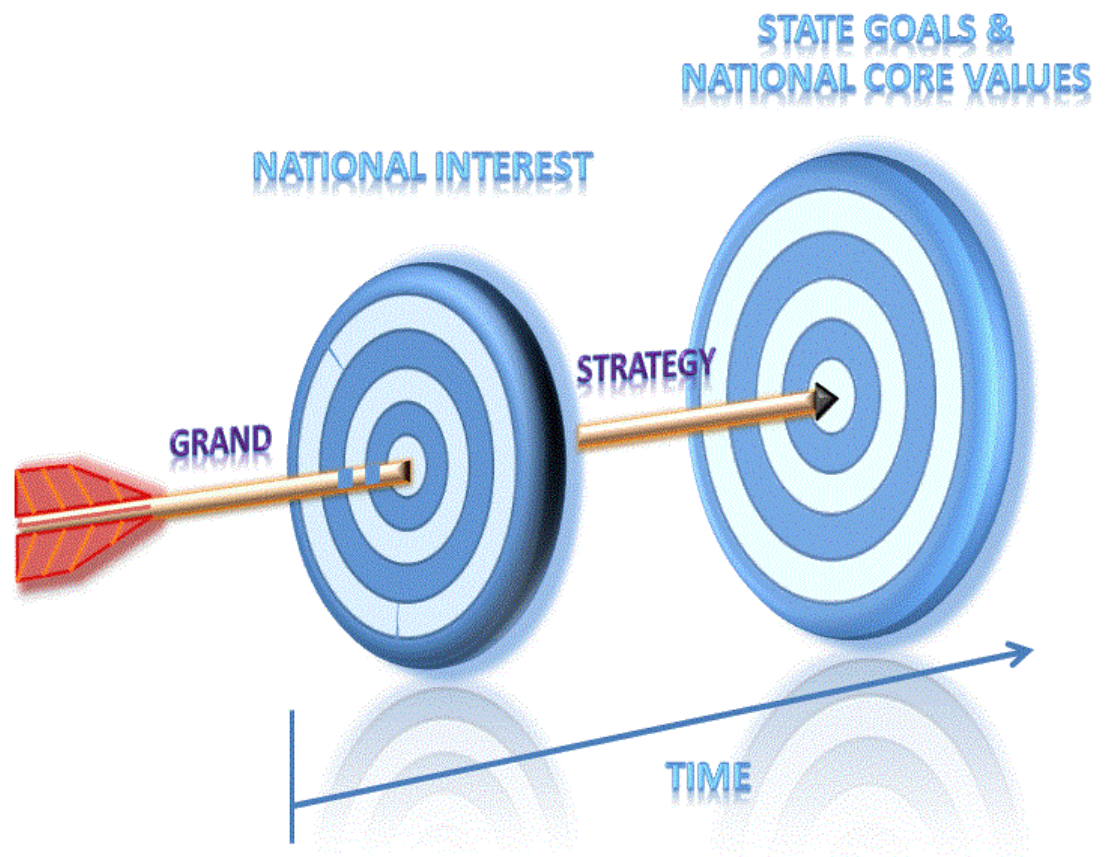


Figure 8: The relationship between applied grand strategy, national interest, and state goals and national core values.

Author's original artwork.

American Professor of international relations Robert J. Art writes that national interest must be prioritized properly among themselves, to guide action in a resource-constrained environment.²⁶ By using the SWOT model, the national interests can be prioritized in accordance with both opportunities and threats.

However, the most important yardstick is still how well the national interests hit the bull's eye of the national security strategy. Applied grand strategy should bridge the

²⁶ Art, Robert J. *A Grand Strategy for America*, 45.

gap between contemporary challenges and the goals and national core values guiding national security strategy. The consideration and need of harmony between current national interest and state goals and national core values, should essentially determine the priority among present national interests.

Chapter 4 contained a discussion about precisely how to measure the strengths of a particular state. Chapter 4 stated that the strength of the state can be measured in absolute terms but the SWOT analysis should yield relative results, results that are contingent on the context. The same principles apply to the weaknesses of the state. They can be objective but what matters in the SWOT analysis is how the weaknesses compare to those of other states.

Furthermore, strengths and weaknesses exist in a relationship of interplay. The SWOT analysis cannot confine itself to a symmetric comparison of strengths and weaknesses among relevant states. A proper SWOT analysis requires a holistic synthesis of the array of positive and negative state attributes. It is to some extent a requirement to compare apples and oranges, because if one state has a large population, a strong economy but a limited military force, how does this compare to a state with a small population, strong economy and significant military force?

Since the SWOT-analysis exists in the future, the potential of the first state may come into full bloom during the time span between the present and the point in future and fundamentally change the entire calculation. Thus, as with scenarios, this is a useful mental excursion that is explorative in character rather than truth finding.

Another important way to assess strengths and weaknesses is to turn the global trends into the reference object, rather than other states. It relates closely to the findings concerning existing threats and opportunities also determined by the SWOT analysis. The ultimate objective of this exercise is to find ways to adapt the state to avoid pitfalls and threats brought about by the trends and to capitalize as much as possible on likely opportunities. This connection bears repeating.

A national security strategy and applied grand strategy should devote at least as much attention to opportunities that enable it to realize its state goals in ways congruent

with its national core values, as it should to anticipate threats and in finding ways to counter threats. A national security strategy that only considers threats is profoundly incomplete.

The practical examples earlier, concerning Canada and Russia and their new situation brought about by global warming provide a case in point. If the two states can increase their benefits because of the effects that global warming, without alienating or seeming threatening to other states, they may realize the potential to increase their security and their economic prosperity.

If they do not recognize the potentials and constraints in the situation, they may alienate other states or miss out on economic opportunities. Layne provides a cautionary tale, told by Irish political philosopher Edmund Burke, about the negative consequences of over-using an advantage or an opportunity, which quickly can transform to a threat.²⁷

Burke writes: “Among precautions against ambition, it may not be amiss to take one precaution against our *own*. I must fairly say, I dreaded *our* own power and *our* own ambition; I dread our being too much dreaded... It is ridiculous to say we are not men, and that, as men we shall never wish to aggrandize ourselves in some way or other... we may say that we shall not abuse this astonishing and hitherto unheard of power. But every other nation will think we shall abuse it. It is impossible to but that, sooner or later, this state of things must produce a combination against us which may end in our ruin.”²⁸

Recognizing opportunities in time is vital to the state, because significant changes must be well prepared and it takes time to carry through in good order. Changes implemented too rapidly by an impatient and ill-connected elite risk disrupting the society and its delicate social contract.

A case that portrays the necessity of timeliness to capture opportunities is Singapore, a state that has been very successful in its embrace of globalization and prepared the population by gradually increasing the level of education and easing

²⁷ Layne, Christopher. *The Peace of Illusions: American Grand Strategy from 1940 to the Present*, 204.

²⁸ Burke, Edmund. *The Works of Edmund Burke*, vol. 4, 457.

financial rule to permit foreign investments. The adaption of the Singaporean society occurred without social strains or ruptures.

The assessment of whether an event presents an opportunity or a threat may not be straightforward. American expert on defense and foreign policy Fred Charles Iklé writes that long term effects of change remain uncertain and it is difficult for a “government to weigh whether to oppose a change that appears threatening – if necessary by going to war – or whether to attempt to live with it, or even turn it into an occasion for reconciliation.”²⁹ Threats are aimed at all three state goals, where security is the most primordial. As with opportunities, the strategist must use understanding of the nature of the situation, imagination and creativity to counter drivers that develop threatening effects.

A long-term national security strategy should anticipate threats either in time to permit societal adaptation to either mitigate undesired effects or counter the drivers delivering these effects, either militarily or through a combination of national means. Another option, if specific threats are difficult to distinguish in the distant future, is to dispense with them altogether and adopt a posture based on desired capabilities rather than threats.³⁰

These capabilities, developed by adaptation in the society, should be designed to enable the state to survive and prosper in the future environment once the effects of the trends set in. Whatever strategy the strategist comes up with, it must contain adequate room for flexibility and freedom of action, because flexibility is the core of any strategy operating in an environment characterized more by change than continuity.

CONCLUSION

Toynbee writes, “[There] seems to be no reason why a succession of stimulating challenges should not be met by a succession of victorious responses *ad infinitum*.”³¹

²⁹ Iklé, Fred Charles. *Every War Must End*, 109-110.

³⁰ Klare, Michael. *Rogue States and Nuclear Outlaws: America's Search for a New Foreign Policy*, 13.

³¹ Toynbee, Arnold J. *Civilization on Trial*, 12.

The present theoretical framework presents a way of achieving the successful response to future challenges that Toynbee searches for. The framework connects the future with the past by viewing and assessing the global trends and their effects through the lens of state goals, national core values, and national interest. Furthermore, the framework places equal emphasis on opportunities and threats. The framework permits an imaginative, artful, well-educated, and creative strategist to devise a national security strategy that is able to meet successfully challenges over time.

The chapter begins with a description of the mechanics of the framework. It includes the definition of strategy from Chapter 2, because that definition drives the model representing the theoretical framework. It also demonstrates how strategy manages change in order to obtain transformation or continuity, depending on whether the state is a status quo state or a challenger state.

Furthermore, the mechanics includes a description of precisely how each trend is the result of one or several drivers, and how each trend produces various effects. Finally, the section about the mechanics of the framework concludes with a prescription of how national security strategy should reinforce or counter the drivers, and mitigate or adapt to the effects produced by the trend.

The second section of the chapter applies a model developed for business assessment, the SWOT model, and demonstrates how a state can evaluate the effects that the trends will have in the future. The assessment has both relative and absolute components and determines the position a particular state will have on the effects produced by the trends. The section details and explains each element on the SWOT analysis. The section covering the assessment process closes with a discussion about how long-term national security strategy supports grand strategy developed and applied to a specific situation.

The main conclusion of this chapter compared to other texts on strategy is the framework of how national security strategy should work to change or reinforce driver and permit the state to mitigate undesired effects and support desired effects, the recognition of the role of opportunities and the SWOT-assessment process to identify

threats and opportunities. It has also emphasized the importance of congruency between present applied grand strategy and the national security strategy, including the state goals and national core values it incorporates. The national security strategy is a bridge over time that attempts to dampen or amplify change in a constantly evolving environment.

CONCLUSION

A national security strategy is the instrument which enables societies to partly influence and shape the conditions of the future in which they and their children will live. It encompasses definitional underpinnings, characterization of strategy across levels of analysis, incorporates global trends, and understands the basic goals of the state (security, prosperity and way of life) as all these factors span time from past, present, to future. It is the purpose of this thesis to demonstrate a theoretical framework that is conducive to development and application of successful national security strategy and applied grand strategy. In this effort, the thesis began by identifying two common omissions in strategic writings.

The first omission concerns the concept of strategy itself. Most of the contemporary and earlier thinking about strategy is almost exclusively directed at military strategy. This leaves policy to cope with how to coordinate ends, ways and means in pursuit of state goals. This condition is not satisfactory for a national security strategy.

Thoughts of national security strategy must be comprehensive and incorporate all instruments of power. In many ways, the fact that a conflict transforms into the military domain is largely a symptom of a failed national security strategy.

The second omission concerning strategic thought is its almost exclusive focus on threats. An over focus on threats renders the strategy reactive rather than proactive, and this is not a satisfactory ambition for a national security strategy. A national security strategy that only considers threats is profoundly incomplete. This study sets out to remedy these two deficiencies. The subject is important, nothing less than the future is at stake.

Chapter 1 examined the deficit in theoretical grand strategic literature, classic as well as modern, with the purpose of explaining the perils in substituting grand strategy for military strategy and illuminating the special requirements of grand strategy. In addition, this chapter identified insightful and useful elements in the present definitions,

despite their inadequacy as grand strategic definitions. The insights and elements acquired in this section of the study contributed to the strategy framework developed in Chapter 5.

Chapter 2 undertook to explain the salient characteristics of strategy, examining the definition of strategy, differences in levels of analysis, the use of context to support strategy, the environment in which grand strategy functions, and some of the cognitive concerns of strategists. The first section defined grand strategy as the marshaling of context for continuous advantage, in order to reinforce desired changes whilst mitigating unwanted changes.

The second section of Chapter 2 separated the concept of grand strategy from that of national security strategy. This part of the chapter finds that grand strategy is both an umbrella term, while at the same time states often use this expression in short-term applications in operations designed for specific purposes. A national security strategy on the other hand, is long-term and anticipatory. It connects the visions of the state and its long-term goals with available means and above all, it develops and describes ways to reinforce desired change while mitigating unwanted change.

The third section of Chapter 2 examined the contextual environment of strategy discussing how to marshal context for developing strategy, the chaotic and complex, chaoplexic, environment of the strategist, and the demands placed upon the strategist in such an environment. It explored how the international system works from different perspectives and how complex relationships in an essentially open-ended system conspire to complicate grand strategy. In section four, the study addressed the question of how to make sense of a world defined by complex, contingent and dynamic interrelationships between multitudes of different units. The fifth and final section studied the cognitive demands that marshaling context for continuous advantage in a complex environment places on the strategist.

Chapter 3 drew the map of the future in terms of global trends as indicators of the future to come, including climate change, globalization, energy transformation, and global demographic change. What the study illustrated was that singly, or in

combination, these trends have the potential to produce effects, positive and/or negative, on states in the international community.

These effects will prove challenging for stable governments; even more so for unstable governments or those with limited resources or low ability to adapt to change. In these areas, the potential for future conflict remains high and the next two decades may prove to be a great historical turning point where many factors may converge, inducing rapid change leading to dangerous developments.¹

As such, this chapter constitutes the compass, pointing out the true north for each particular state, and that enables the creation and sustainment of a national consensus of what role that state plays in the world and why.

In Chapter 4, the study examined three common state goals - security, prosperity and way of life.² The two first national goals, security and prosperity, are basic needs of all societies, and generally must be fulfilled to an adequate degree before a society is ready to assume other goals. The focus of this chapter was on the concept of core values and their influence national security strategy and the achievement of national goals. The third goal of preserving or developing a desired way of life is highly contingent on the national core values.

The essence of this chapter is the importance of the connection between the present, the past and the future. British political scientist Christopher Coker writes of the importance of a relevant end (*telos*) in tune with the values system (*ethos*) of the society.³ The social contract is the most important mechanism for Western states for balancing the inherent tension between the private and the collective in terms of freedom, rights and duties. Rousseau devised this form of the social contract to protect the core national values of Western societies. His conception sought to release as much private initiative and creativity as possible for the furthering of the societies individual and collective good.

¹ National Intelligence Council. *Global Trends 2025: A Transformed World*, 1.

² George, Alexander and Robert Keohane. "The Concept of National Interests: Uses and Limitation" in George, Alexander, *Presidential Decisionmaking Foreign Policy*, 217-238.

³ Coker, Christopher: "Rebooting the West: The US, Europe and the Future of the Western Alliance", *Royal United Services Institute Whitehall Paper no. 72*, v.

The values, secular in Rousseau's version of the social contract, are expressions of Christian beliefs as Spengler and Toynbee remind us. During the last two millennia in the West, states embedded their national core values in culture, traditions and norms of the society. The finding is that values change slowly and gradually over long periods. Coker observed that national values are so important to the democratic institutions that states cannot long sustain their institutions if their values and the moral codes of conduct are degraded.⁴ The implication for the strategist is that a strategy without a moral compass seems destined to fail.

Finally, in Chapter 5, the study builds a strategy framework discussing its mechanisms, including driving factors, global trends, and the effects produced followed by the introduction of a means to evaluate the model's application. The section about the mechanics of the framework concluded with a prescription of how national security strategy should reinforce or counter the drivers, and mitigate or adapt to the effects produced by the trends.

The second section of Chapter 5 applied a model developed for business assessment, the Strengths-Weaknesses-Opportunities-Threats (SWOT) model and demonstrated how a state can evaluate the effects that the trends will have in the future. The assessment has both relative and absolute components and determines the position a particular state will have on the effects produced by the trends. The section about the assessment process closed with a discussion about how long-term national security strategy supports grand strategy developed and applied to a specific situation.

Major Conclusions of the Study

Overall, the study reaches four major conclusions that have implications for national security strategy and grand strategy. First, as Dolman affirms national security strategy has no end but attempts to attain a continuing advantage across history.⁵ A

⁴ Coker, Christopher: "Rebooting the West: The US, Europe and the Future of the Western Alliance", *Royal United Services Institute Whitehall Paper no. 72*, 5.

⁵ Dolman, Everett Carl. *Pure Strategy: Power and Principle in the Space and Information Age*, 6.

culmination of an ongoing event is not a conclusion of strategy but one in a long chain of events that connects the present with the past and the future.⁶

Second, strategy manages current and future change, which requires anticipation. An assessment of global trends provides an instrument for anticipating the future that is concrete enough to say something about the future but still retains room for flexibility and adaptability, which is necessary in order to accommodate actions and reactions of other states.

Third, national core values have great impact on national security strategy, both as boundaries for applied strategy and as historical enablers. In the West, national core values have promoted a way of life that is exceptionally conducive to the creation and accumulation of economic prosperity. Economic prosperity in turn, permitted the West to purchase security through technological innovations and the maintenance of advanced armed forces.

Fourth, the strategy framework developed in Chapter 5 empowers national security with proactive potentials to reinforce opportunities and oppose and change threats before they come to full fruition. It arms the strategic analysis with instruments to identify negative and positive global trend drivers and help focus the assessment on where to inject energy into the chaoplexic system in order to leverage positive and/or negative feedback loops. These four major conclusions have powerful implications for strategic analysis. Each is developed more in turn in the ensuing paragraphs.

Major Implications of the Study

Strategy is not easy to get right and the probability of success depends on how a variety of factors integrates into the proposed framework. One of the most important factors is how the society defines success. If a society is preoccupied with absolute victory in each particular confrontation, they risk raising the stakes and attach too much

⁶ Dolman, Everett Carl. *Pure Strategy: Power and Principle in the Space and Information Age*, 6.

prestige to previous strategic decisions, and conflate the current problems out of proportions and thereby lose sight of their ultimate state goals.

An implication of the first conclusion is that a much better way to frame success is to connect the present to the past and the future and recognize that success is a matter of continuously, over the long run, obtain national advantage. Success and failure are measured in relative terms and in relative gains.

The proper yardstick by which to measure strategy is if the state has achieved a better state of peace compared to the situation previous to the application of strategy.⁷ This understanding of success should form the core of the definition of national security strategy. Strategy is at heart a human endeavor to prepare for and tackle challenging changes brought about by other states, other types of actors or by forces emanating from nature.⁸

Harnessing national resources and adapting the state so that it is prepared it for coming changes require time. Sudden and thoroughgoing societal changes are disruptive and should be avoided, which leads into the second factor affecting the probability of success. A long-view of the future requires mechanisms capable of accurately anticipating distant but coming changes.

An implication of the second conclusion is that strategist should focus attention on global trends, their drivers and their anticipated effects as a hand rail appropriate for guiding national strategic conceptualization of the future. Global trends are the manifestation of multiple drivers interacting with the environment and as such, the global trends constitute patterns of change to the international system. The advantage of using global trends as indicators of future change is that they are objective in that they do not require multiple assumptions about actions and reactions of other states.

The present assessment of global trends indicates that the future holds more change than continuity. Many of the effects caused by the global trends have negative potential and some may even lead to armed conflict. Because armed conflict “consumes

⁷ Liddell Hart, B. H. *Strategy*, 338.

⁸ Gray, Colin. *The Strategy Bridge: Theory for Practice*, 36.

immense moral and material resources to keep fighting, it will at some point prevent its own continuation.”⁹ In line with conclusion one, when war ceases, a better state of peace should better be attained. If not, the expenditure of resources was not worth the candle and strategy has failed. The ultimate state goals must be the yardstick that determines strategic success or failure.

The implications of the third conclusion are that strategy requires a clear sense of purpose and goal. Because national security strategy participates in a millennia old game, the strategy must be in concert with the goals of the state it serves and its national core values, which developed over centuries and change very slowly; to connect with the stream of history and permit the state to enjoy the game for millennia’s to come. A strategy that deviates from the values and norms of its society will only survive for a short time. The wider the deviation, the shorter it will live.

At the core, the relationship between strategy and values and norms demonstrates that the state must synchronize itself with its society. Applied grand strategy, directed by national interest, must be congruent with the state goals and the national security strategy. Sometimes compromises must be made over the short turn, for example over stability versus principles, but if the compromises are too frequent, the national security strategy should be re-aligned.

The essence of the implications for conclusion three is that the national core values remain the foundation of the Western civilization and it is these values that have permitted and enabled the Western way of life that has proven so conducive to economic prosperity. Economic prosperity in turn has purchased an enduring relative security advantage for the West over centuries, if not millennia.

The three state goals, security, economic prosperity, and way of life, have a hierarchical relationship and the state goals tie together with Western national core values. The national core values and the Western way of life are the very foundation upon which a Western continuous advantage rests. This argument in turn leads to two assertions.

⁹ Luttwak, Edward N. *Strategy: The Logic of War and Peace*, 57.

First, the fundamental role of national core values and way of life establishes boundaries and the lens for how strategists should determine national interests in light of the change brought about by global trends. Second, the national core values and the way of life are highly important objects to protect and take into consideration. The strategy framework presented in this thesis provides a mechanism that integrates national security strategy as a concept for attaining continuous advantage, global trends and state goals, national core values and national interest.

The two major implications from conclusion four are that national security strategy should be proactive rather than reactive and recognize opportunities as well as threats. A state content to let other states and forces of nature shape its future can focus exclusively on threats. In contrast, a state wishing to master its own destiny must direct precisely as much energy to opportunities presented by the global trends as to threats. Threats are clearly not unimportant but they do foster a mindset of reaction rather than proaction.

Furthermore, strategy is formulated in a volatile and chaoplexic environment, which requires constant learning and adaptation. The theoretical framework presents an integrative process where the map and the compass provide reference points, and where energy is inserted into the system to reinforce desirable drivers, to change drivers causing undesirable effects, support effects that present opportunities and mitigate undesired effects.

It is a framework that is well-suited to chaoplexity and that provides adequate guidance for national security strategy as well as for applied grand strategy, while retaining enough flexibility to permit desired and necessary political freedom of action. The framework enables national security strategy to be bridge over time that attempts to dampen or amplify change in a constantly evolving environment.

In the end, this thesis came to fruition as a result of a gradual process that over time widened the concept of strategy to grand strategy. German historian and political scientist, Beatrice Heuser, maps the evolution of strategic thought and concludes that the meaning of strategy has migrated over time. Strategy used to contain a military element

only, but after WWI the concept drifted closer to policy.¹⁰ It attempts to give guidance to a strategist operating at the edge between order and chaos, who has to be prepared to inculcate order from chaos as well as create chaos from order when that is most beneficial. It arms the strategist to successfully function in a condition of entropy, a condition where creation and novelty may emerge.¹¹ It promotes a strategy that can successfully meet challenges over time.

Toynbee writes, “[There] seems to be no reason why a succession of stimulating challenges should not be met by a succession of victorious responses *ad infinitum*”.¹² The theoretical framework, developed for national security strategy analysis, where the strategy connects the present to the past and the future, and recognition of opportunities carries the same weight of importance as threats. Such a framework permits an imaginative, artful, well-educated, and creative strategist to devise a national security strategy that is able to respond successfully to challenges over time, just as suggested by Toynbee long ago.

¹⁰ Heuser, Beatrice. *The Evolution of Strategy: Thinking War from Antiquity to the Present*, 8-9.

¹¹ Bousquet, Antoine. *The Scientific Way of Warfare: Order and Chaos on the Battlefields of Modernity*, 190.

¹² Toynbee, Arnold J. *Civilization on Trial*, 12.

BIBLIOGRAPHY

- Aaron, Raymond. *Democracy and Totalitarianism*. New York, NY; Fredrick A. Praeger, Publishers, 1969.
- Aaron, Raymond. *Clausewitz: Philosopher of War*. Englewood Cliffs, NJ: Prentice-Hall Inc., 1985.
- Aaron, Raymond. *Peace and War: A Theory of International Relations*. New Brunswick, NJ: Transaction Publishers, 2003.
- Ackerman, John. "Environmental Security: Evolution of a Paradigm". In Air Command and Staff College. *International Security Studies: AY10 Coursebook*. Montgomery, AL: Air University, 2009.
- Agrawala, Shardul, Tomoko Ota, Ahsan Uddin Ahmed, Joel Smith and Maarten van Aalst. *Development and Climate Change in Bangladesh: Focus on Coastal Flooding and the Sundarbans*, OECD, 2003.
<http://www.oecd.org/dataoecd/46/55/21055658.pdf>
- Allison, Graham and Philip Zelikow. *Essence of Decision: Explaining the Cuban Missile Crisis*. New York, NY: Longman, 1999.
- Art, Robert J. *A Grand Strategy for America*. Ithaca, NY: Cornell University Press, 2003.
- Assadourian, Eric (Project Director at the World Watch Institute). *Vital Signs 2007-2008; The Trends that are Shaping Our Future*. New York, NY: W.W. Norton & Company, 2007.
- Ataniyazova, Oral A. *Health and Ecological Consequences of the Aral Sea Crisis*. The Karakalpak Center for Reproductive Health and Environment, Uzbekistan. Paper prepared for the 3rd World Water Forum Regional Cooperation in Shared Water Resources in Central Asia Kyoto, March 18, 2003.
http://www.adb.org/Documents/Presentations/RC_Shared_Water/Ataniyazova.pdf
- Atran, Scott. *Talking to the Enemy: Faith Brotherhood and the (Un)making of Terrorists*. New York, NY; HarperCollins Publishers, 2010.
- Axelrod, Robert. *The Evolution of Cooperation*. New York, NY; Basic Books, 2006.
- Beaufre, Andre. *An Introduction to Strategy*. New York, NY: Praeger, 1965.

- Bendjelid, Karim & Jacques-A. Romand. "Fluid Responsiveness in Mechanically Ventilated Patients: A Review of Indices Used in Intensive Care". In *Applied Physiology in Intensive Care Medicine* edited by Göran Hedenstierna, Jordi Mancebo, Laurent Brochard and Michael R. Pinsky. Berlin & Heidelberg: Springer, 2009. A preview available from <http://resources.metapress.com/pdf-preview.axd?code=gd1ne997g1lu3p7d&size=largest>
- Berlin, Isaiah. *Four Essays on Liberty*. New York, NY: Oxford University Press, 1970.
- Bijker, Wiebe E., Thomas P. Hughes and Trevor Pinch. *The Social Construction of Technological Systems: New Directions in the Sociology and History of Technology*. Cambridge, MA: The MIT Press, 1989.
- Bousquet, Antoine. *The Scientific Way of Warfare: Order and Chaos on the Battlefields of Modernity*. Chichester, NY: Columbia University Press, 2009.
- Brodie, Bernard. *Strategy in the Missile Age*. Santa Monica, CA: RAND, 2007.
- Builder, Carl H. *The Icarus Syndrome: The Role of Air Power Theory in the Evolution and Fate of the U.S. Air Force*. Santa Monica, CA: RAND, 2009.
- Bull, Hedley. *The Anarchical Society: A Study of Order in World Politics*. New York, NY: Columbia University Press, 2002.
- Bungay, Stephen. *The Most Dangerous Enemy: An Illustrated History of the Battle of Britain*. Minneapolis, MN: Zenith Press, 2010.
- Burke, Edmund. *The Works of Edmund Burke*, vol. 4. Boston, MA: Little, Brown, 1901.
- Buzan, Barry. *People, States & Fear: An Agenda for International Security Studies in the Post-Cold War Era*. Boulder, CO: Lynne Rienner Publishers Inc., 1991.
- Buzan, Barry, Charles Jones and Richard Little. *The Logic of Anarchy: Neorealism to Structural Realism*. New York: NY; Columbia University Press, 1993.
- Buzan, Barry and Ole Waver and Jaap de Wilde. *Security: A New Framework for Analysis*. Boulder, CO: Lynne Rienner Publishers Inc., 1998.
- Buzan, Barry and Ole Waver. *Regions and Powers: The Structure of International Security*. Cambridge: Cambridge University Press, 2003.
- Call, Steve. *Danger Close: Tactical Air Controllers in Afghanistan and Iraq*. College Station, TX: Texas A&M University Press, 2009.
- Clausewitz, Carl von. *On War*. Princeton, NJ: Princeton University Press, 1989.
- Clodfelter, Mark. *The Limits of Air Power: The American Bombing of North Vietnam*. Lincoln, NE: University of Nebraska Press, 2006.

- Coker, Christopher: "Rebooting the West: The US, Europe and the Future of the Western Alliance", *Royal United Services Institute Whitehall Paper no. 72* (2009).
- Corum, James S. *The Luftwaffe: Creating the Operational Air War, 1918-1940*. Lawrence, KS; University Press of Kansas, 1997.
- Craig, Campbell. *Destroying the Village: Eisenhower and Thermonuclear War*. New York, NY; Columbia University Press, 1998.
- Curtis, Alan, ed. *Patriotism, Democracy and Common Sense: Restoring America's Promise at Home and Abroad*. Lanham, MD; Rowman & Littlefield Publishers, Inc., 2004.
- Dam, Kenneth W. and William A. Owens. *Technology, Policy, Law, and Ethics Regarding U.S. Acquisition and Use of Cyberattack Capabilities*. Washington D.C.; The National Academics Press, 2009.
- De Tocqueville, Alexis. *Democracy in America Vol. II*. New York, NY; Alfred Knopf, 1946.
- Deutch, John, James R. Schlesinger and David G. Victor. "National Security Consequences of U.S. Oil Dependency". In *Air Command and Staff College International Security Studies: AY10 Coursebook*. Montgomery, AL: Air University, 2009.
- Dewar, James A. *Assumption-Based Planning: A Tool for Reducing Avoidable Surprises*. Cambridge: Cambridge University Press, 2002.
- Dolman, Everett Carl. *Pure Strategy: Power and Principle in the Space and Information*. New York, NY: Frank Cass, 2005.
- Douhet, Giulio. *The Command of the Air*. Tuscaloosa, AL: The University of Alabama, 2009.
- Doyle, Kevin. "In Cambodia, Pol Pot's Regime on Trial at Last", *Time*, 17 February 2009, <http://www.time.com/time/world/article/0,8599,1879869,00.html>
- Doyle, Michael W. *Ways of War and Peace*. New York, NY: W.W. Norton and Company Inc., 1997.
- Drew, Dennis M. and Donald M. Snow. *Making Twenty-First Century Strategy: An Introduction to Modern National Security Processes and Problems*. Montgomery, AL: Air University Press, 2006.
- Drucker, Peter F. *Managing in a Time of Great Change*. New York, NY: Truman Talley Books, 1995.

- Edgar, Johan, Linda Hjerten, Mira Micic and Eric Wiman. *Blodiga upplopp pa Teherans gator (Bloody Protest on the Streets of Teheran)*. www.aftonbladet.se/nyheter/article5407720.ab, June 20, 2009.
- Fahey, Liam and Robert M. Randall. *Learning from the Future: Competitive Foresight Scenarios*. New York, NY: John Wiley & Sons Inc., 1998.
- Freedman, Lawrence. *The Evolution of Nuclear Strategy*. London, Palgrave MacMillan, 2003.
- Friedman, George. *The Next 100 Years: A Forecast for the 21st Century*. New York, NY: Doubleday, 2009.
- Friedman, Thomas L. *The World is Flat: A Brief History of the Twenty-First century*. New York: Picador, 2007.
- Fuller, J. F. C. *The Foundation of the Science of War*. London; Hutchinson and Co. Publishers LTD, 1926.
- Fuller, J.F.C. "On Future Warfare". In Air Command and Staff College. *Warfare Studies: AY10 Coursebook*. Montgomery, AL: Air University, 2009.
- Galula, David. *Counterinsurgency Warfare: Theory and Practice*. Westport, CT: Praeger Security International, 2006.
- Gardner, Gary and Thomas Prugh (Project Directors at the World Watch Institute). *2008 State of the World: Innovations for a Sustainable Economy*. New York, NY: W.W. Norton & Company, 2008.
- General Assembly of the United Nations. *The United Nations Universal Declaration of Human Rights*. <http://www.un.org/en/documents/udhr/index.shtml>.
- George, Alexander and Robert Keohane. "The Concept of National Interests: Uses and Limitation" in George, Alexander, *Presidential Decisionmaking Foreign Policy*. Boulder, CO: Westview Press, 1980.
- Gilpin, Robert. *War and Change in World Politics*. Cambridge; Cambridge University Press, 2002.
- Giustozzi, Antonio ed. *Decoding the New Taliban: Insights from the Afghan Field*. New York, NY: Columbia University Press, 2009.
- Glenn, Jerome C. and Theodore J. Gordon. *2007 State of the Future*. Washington D.C.: World Federation of United Nations Associations and American Council for the United Nations University, 2007.

- Granholm, Niklas, Johannes Malminen and John Rydquist. *Strategisk utblick 2009: sakerhetspolitisk forsraning? (Strategic Outlook 2009: Security Political White Water Rafting?)*. Stockholm: Totalforsvarets Forskningsinstitut (Swedish Defense Research Institute), 2009. <http://www2.foi.se/rapp/foir2745.pdf>
- Gray, Colin S. *Explorations in Strategy*. Westport, CT: Praeger Publishers, 1998.
- Gray, Colin S. *Modern Strategy*. Oxford; Oxford University Press, 1999.
- Gray, Colin S. *The Strategy Bridge: Theory For Practice*. Oxford; Oxford University Press, 2010.
- Grayling, A. C. *Among Dead Cities: The History and Moral Legacy of the WWII Bombing of Civilians in Germany and Japan*. New York, NY; Walker Publishing Company Inc., 2006.
- Griffith, Samuel B. *Sun Tzu: The Illustrated Art of War*. Oxford: Oxford University Press, 2005.
- Grygel, Jakub J. *Great Powers and Geopolitical Change*. Baltimore: The Johns Hopkins University Press, 2006.
- Hammond, Grant T. *The Mind of War: John Boyd and American Security*. Washington D.C: Smithsonian Books, 2001.
- Hanson, Elisabeth C. *The Information Revolution and World Politics*. Lanham, ML: Rowman and Littlefield Publishers Inc., 2008.
- Hari, Daoud. *The Translator: A Tribesman's Memoir of Darfur*. New York: Random House, 2008.
- Harvard Business School Executive Education:
<http://search.hbs.edu:8765/exed/?sub=exed&qt=strategy>
- Heidegger, Martin. *The Question Concerning Technology and Other Essays*. New York, NY: Harper Torchbooks, 1982.
- Heijden, Kees Van Der. *Scenarios: The Art of Strategic Conversation*. Cichester: John Wiley & Sons, 1997.
- Heijden, Kees van der, Ron Bradfield, George Burt, George Cairns and George Wright. *The Sixth Sense: Accelerating Organizational Learning with Scenarios*. Chichester, John Wiley & Sons, LTD., 2002.
- Heuser, Beatrice. *The Evolution of Strategy: Thinking War from Antiquity to the Present*. Cambridge: Cambridge University Press, 2010.

- Heylighen, Francis Paul and Cliff Joslyn. "Cybernetics and Second-Order Cybernetics", in Robert A. Meyers ed. *Encyclopedia of Physical Science and Technology*. New York: NY, Academic Press, 2001.
- Hiebert, Murray and Bruce Klatt. *The Encyclopedia of Leadership: A Practical Guide to Popular Leadership Theories and Techniques*. New York, NY: McGraw-Hill, 2001.
- Hill, Charles. *Grand Strategies: Literature, Statecraft, and World Order*. New Haven, CT; Yale University Press, 2010.
- Hinote, Clinton. *Centralized Command and Decentralized Execution: A Catchphrase in Crisis?* Maxwell Air Force Base, Alabama: Air Force Research Institute, 2009.
- Hirsch, Robert L. "National The Inevitable Peaking of World Oil Production". In Air Command and Staff College. *International Security Studies: AY10 Coursebook*. Montgomery, AL: Air University, 2009.
- HM Treasury. *Stern Review on the economics of climate change*. London: HM Treasury. http://webarchive.nationalarchives.gov.uk/+/http://www.hm-treasury.gov.uk/media/3/6/Chapter_1_The_Science_of_Climate_Change.pdf
- Hobbes, Thomas. *Leviathan or the Matter, Form and Power of A Commonwealth Ecclesiastical and Civil*. Oxford; Basil Blackwell, 1946.
- Hockey Drills & Practice Plans: Step by Step Hockey Coaching System*.
<http://www.besthockeydrills.com/hockey-plays/hockey-strategies-and-plays.html>
- Horne, Alistair. *The Price of Glory: Verdun 1916*. London; Penguin Books, 1993.
- Hughes, Daniel J. *Moltke on the Art of War: Selected Writings*. New York, NY: Ballantine Books, 1993.
- Iklé, Fred Charles. *Every War Must End*. New York, NY: Columbia University Press, 2005.
- IMD Business School. <http://www.imd.org/research/challenges/TC078-08.cfm>.
- Intergovernmental Panel on Climate Change. *IPCC Fourth Assessment Report: Climate Change 2007*. http://www.ipcc.ch/publications_and_data/ar4/syr/en/spms1.html. IPCC: Geneva, 2007.
- Intergovernmental Panel on Climate Change. *IPCC Fourth Assessment Report: Climate Change 2007*. http://www.ipcc.ch/pdf/assessment-report/ar4/syr/ar4_syr_spm.pdf. IPCC: Geneva, 2007.
- Janis, Irving L. *Groupthink*. Boston, MA: Houghton Mifflin Company, 1982.

- Jenkins, Arthur Hugh. *Adam Smith Today: An Inquiry into the Nature and Causes of the Wealth of Nations*. New York, NY: Richard R. Smith, 1948.
- Jenner, R. A. "Dissipative Enterprises, Chaos, and the Principles of Lean Organizations". *Omega: The International Journal of Managements Science*, Vol. 26, No. 4 (December 1998).
- Jervis, Robert. *System Effects: Complexity in Political and Social Life*. Princeton, NY; Princeton University Press, 1997.
- Jervis, Robert. *Perception and Misperception in International Politics*. Princeton, NJ: Princeton University Press, 1976.
- Jomini, Antoine-Henri. *The Art of War*. Mineola, NY; Dover Publications Inc., 2007.
- Jones, Seth. *In the Graveyard of Empires: America's War in Afghanistan*. New York, NY: W. W. Norton & Company, 2010.
- Journal of Business Strategy*. <http://jobs.americansentinel.edu/>
- Kalyvas, Stathis N. *The Logic of Violence in Civil War*. New York, NY; Cambridge University Press, 2006.
- Keohane, Robert O. *After Hegemony: Cooperation and Discord in the World Political Economy*. Princeton, NJ: Princeton University Press, 2005.
- Keynes, John Maynard. *The Economic Consequences of the Peace*. New York, NY: Harcourt Brace Jovanovich, 1920.
- Khanna, Parag. *The Second World: Empires and Influence in the New Global Order*. New York, NY: Random House, 2008.
- Khong, Yuen Foong. *Analogies at War: Korea, Munich, Dien Bien Phu and the Vietnam Decisions of 1965*. Princeton, NJ: Princeton University Press, 1992.
- Klare, Michael. *Rogue States and Nuclear Outlaws: America's Search for a New Foreign Policy*. New York, NY: Hillard and Wang, 1995.
- Klein, John J. *Space Warfare Strategy: Principles and Policy*. London: Routledge, 2006.
- Korin, Anne. "Rising Oil Prices, Declining National Security". In Air Command and Staff College. *International Security Studies: AY10 Coursebook*. Montgomery, AL: Air University, 2009.
- Kramer, Franklin D., Stuart H. Starr and Larry K. Wentz. *Cyberwar and National Security*. Washington D.C.: Potomac Books Inc, 2009.
- Kuchins, Andrew C. *Russia after the Fall*. Washington D.C.; Carnegie Endowment for International Peace, 2002.

- Kuhn, Thomas. *The Structure of Scientific Revolutions*. Chicago, MI: The University of Chicago Press, 1996.
- Layne, Christopher. *The Peace of Illusions: American Grand Strategy from 1940 to the Present*. Ithaca, NY: Cornell University Press, 2006.
- Lebow, Richard Ned. *A Cultural Theory of International Relations*. Cambridge, NH: Cambridge University Press, 2008.
- Libicki, Martin C. *Conquest in Cyberspace: National Security and Information Warfare*. New York, NY; Cambridge University Press, 2007.
- Liddell Hart, B.H. *Strategy*. New York, NY: Meridian, 1991.
- Locke, John. *Two Treatises of Government*. New York, NY: Hafner Publishing Company, 1947.
- Lonsdale, David J. *The Nature of War in the Information Age: A Clausewitzian Future*. London: Frank Cass, 2004.
- Luft, Gal. "Iran and Brazil Can Do It. So Can We". In Air Command and Staff College. *International Security Studies: AY10 Coursebook*. Montgomery, AL: Air University, 2009.
- Luttwak, Edward N. *Strategy: The Logic of War and Peace*. Cambridge, MA; The Belknap Press of Harvard University Press, 2003.
- Mahan, Alfred T. *Mahan on Naval Strategy: Selections from the Writings of Rear Admiral Alfred Thayer Mahan*. Annapolis, ML: Naval Institute Press, 1991.
- Mahnken, Thomas G. *Technology and the American Way of War since 1945*. New York, NY: Columbia University Press, 2008.
- Mansfield, Edward D. and Jack Snyder. *Electing to Fight: Why Emerging Democracies Go To War*. Cambridge, MA: MIT Press, 2005.
- Maslow, Abraham. "A Theory of Human Motivation", *Psychological Review* 50, no. 4 (1943).
- McDougall, Walter A. ...*The Heavens and the Earth: A Political History of the Space Age*. Baltimore, ML: Basic Books, 1985.
- McGraw, Jay and Philip C. McGraw. *Life Strategies for Teens*. New York, NY: Fireside, 2000.
- McGraw, Philip C. *Life Strategies: Doing What Works, Doing What Matters*. New York, NY: Hyperion, 2000.

- McKeown, Alice (Project Director at the World Watch Institute). *Vital Signs 2009: The Trends that are Shaping Our Future*. Washington D.C.: World Watch Institute, 2009.
- McNeill, William H. *The Rise of the West: A History of the Human Community*. Chicago, IL: University Of Chicago Press, 1992.
- McNeill, William H. *The Pursuit of Power*. Chicago, IL; The University of Chicago Press, 1984.
- Mill, John Stuart. *On Liberty*. New York, NY: Gateway Editions, Inc., 1955.
- Miller, Roger G. *To Save a City: The Berlin Airlift 1948-1949*. College Station, TX; Texas A&M University Press, 2008.
- Ministry of Defence, Development, Concepts and Doctrine Centre. *The Global Strategic Trends Programme 2007-2036*. Shrivenham: DCDC, 2007.
<http://www.mod.uk/DefenceInternet/MicroSite/DCDC/OurPublications/StrategicTrends+Programme/>
- Montesquieu, Charles De Secondat, Baron De. *The Spirit of Laws*. Chicago, IL: Encyclopedia Britannica, Inc, 1952.
- Morgenthau, Hans J. *Politics Among Nations: The Struggle for power and Peace*. New York: Alfred Knopf, 1960.
- Murray, Williamson, Richard Hart Sinnreich and James Lacey. *The Shaping of Grand Strategy: Policy, Diplomacy, and War*. Cambridge, Cambridge University Press, 2011.
- National Intelligence Council. *Global Trends 2025: A Transformed World*. Washington D.C.: US Government Printing Office, 2008.
- Nye, Joseph S. "Redefining the National Interest". In *Foreign Affairs*, July/August 1999, Vol. 78, No. 4. Buffalo, New York: William S. Hein & Co., Inc.
- Nye, Joseph S. *The Paradox of American Power: Why the World's Only Superpower can't go at it Alone*. New York: Oxford University Press, 2003.
- Nye, Joseph S. *The Future of Power*. New York, NY: Public Affairs, 2011.
- Olsen, John Andreas ed. *A History of Air Warfare*. Washington D.C.: Potomac Books Inc., 2010.
- Oren, Michael B. *Six Days of War: June 1967 and the Making of the Modern Middle East*. New York, NY: Ballentine Books, 2003.
- O'Sullivan, Patrick. *Geopolitics*. New York: St. Martin's Press, 1986.

Overy, Richard J. *The Air War 1939-1945*. Washington D.C.: Potomac Books Inc., 2005.

Oxford Dictionaries online:

http://oxforddictionaries.com/view/entry/m_en_us1294847#m_en_us1294847.

Oxford Dictionaries online:

http://oxforddictionaries.com/view/entry/m_en_us1294840#DWS-M_EN_US-195283.

Oxford Dictionaries online:

http://oxforddictionaries.com/view/entry/m_en_us1304443#m_en_us1304443.

Oxford Dictionaries online:

http://oxforddictionaries.com/view/entry/m_en_us1235627#m_en_us1235627

Pape, Robert A. *Bombing to Win: Air Power and Coercion in War*. Ithaca, NY: Cornell University Press, 1996.

Paret, Peter ed. *Makers of Modern Strategy: From Machiavelli to the Nuclear Strategy*. Princeton, NJ: Princeton University Press, 1986.

Parker, Geoffrey. *The Military Revolution: Military Innovation and the Rise of the West 1500-1800*. Cambridge: Cambridge University Press, 1996.

Peattie, Mark R. *Sunburst: The Rise of Japanese Naval Air Power 1909-1941*. Annapolis, ML: Naval Institute Press, 2007.

Posen, Barry R. *The Sources of Military Doctrine: France, Britain, and Germany between the World Wars*. Ithaca, NY: Cornell University Press, 1984.

Qutb, Seyyid. *Milestones*. Dar Al-ILM, Damascus, Syria, 1964.

Randolph, Stephen P. *Powerful and Brutal Weapons: Nixon, Kissinger and the Easter Offensive*. Cambridge, MA: Harvard University Press, 2007.

Reading, Clive. *Strategic Business Planning: A Dynamic System for Improving Performance & Competitive Advantage*. London: Kogan Page, 2002.

Ringland, Gill. *Scenario Planning: Managing for the Future*. Chichester: John Wiley & Sons, 2002.

Roe Smith, Merritt and Leo Marx, ed. *Does Technology Drive History: The Dilemma of Technological Determinism*. Cambridge, MA: The MIT Press, 1994.

Rose, Gideon. *How Wars End: Why We Always Fight the Last Battle*. New York, NY: Simon & Schuster, 2010.

Rosecrance, Richard N. *The Rise of the Trading State: Commerce and Conquest in the Modern World*. New York, NY: Basic Books, Inc., 1986.

- Rosen, Stanley. *Plato's Statesman: The Web of Politics*. New Haven, CT; Yale University Press, 1995.
- Rosen, Stephen Peter, *Winning the Next War: Innovation and the Modern Military*. Ithaca, NY: Cornell University Press, 1991.
- Rousseau, Jean-Jacques. *The Social Contract*. Amherst, NY: Prometheus Books, 1988.
- Salehyan, Idean. *Rebels Without Borders: Transnational Insurgencies in World Politics*. Ithaca, NY: Cornell University Press, 2009.
- Schelling, Thomas C. *The Strategy of Conflict*. Cambridge, MA; Harvard University Press, 1980.
- Schelling, Thomas C. *Arms and Influence*. New Haven, MA; Yale University Press, 1966.
- Schwartz, Peter. *The Art of the Long View: Planning for the Future in an Uncertain World*. New York, NY: Doubleday, 1996.
- Scruton, Roger. *The West and the Rest: Globalization and the Terrorist Threat*. Wilmington, DE; Intercollegiate Studies Institute, 2002.
- Smith, Perry M. *Assignment Pentagon: How to Excel in a Bureaucracy*. Dulles, VA: Brassey's Inc., 2002.
- Spengler, Oswald. *The Decline of the West II*. New York, NY; Alfred A. Knopf, 1957.
- Spykman, Nicholas. *The Geography of Peace*. New York, NY: Harcourt, Brace and Company, 1944.
- Strassler, Robert B. *Thucydides: A Comprehensive Guide to The Peloponnesian War*. New York, NY; Free Press, 2008.
- Tedder, Arthur W. *Air Power in War*. Tuscaloosa, AL: The University of Alabama Press, 2010.
- Tillman, Barrett. *Whirlwind: The Air War Against Japan 1942-1945*. New York, NY; Simon & Schuster, 2010.
- Toynbee, Arnold J. *Civilization on Trial*. New York, NY: Oxford University Press, 1948.
- Toynbee, Arnold J. *A Study of History Vol. I*. London, Oxford University Press, 1956.
- United Nations, *Member States of the United Nations*,
<http://www.un.org/News/Press/docs/2006/org1469.doc.htm>
- United States Environmental Protection Agency. *Climate Change*. Washington D.C.
<http://www.epa.gov/climatechange/science/pastcc.html>

- Urry, John. *Global Complexity*. Cambridge: Blackwell Publishing Ltd., 2003.
- Van Creveld, Martin. *Command In War*. Cambridge, MA: Harvard University Press, 1985.
- Waldrop, Mitchell T. *Complexity: The Emerging Science at the Edge of Order and Chaos*. New York, NY: Simon and Schuster Paperbacks, 1992.
- Valéry, Paul: *Reflections on the World Today*. New York, NY; Pantheon Books Inc., 1948.
- Waltz, Kenneth N. *Theory of International Politics*. Long Grove, IL: Waveland Press Inc., 2010.
- Walzer, Michael. *Just and Unjust Wars: A Moral Argument with Historical Illustrations*. New York, NY; Basic Books, 2006.
- Weber, Max. *From Max Weber: Essays in Sociology*. New York, NY: Galaxy Books, 1958.
- Wendt, Alexander: *Social Theory of International Politics*. Cambridge: Cambridge University Press, 2006.
- Wikipedia: http://en.wikipedia.org/wiki/Ice_hockey
- Winton, Harold R. "An Imperfect Jewel: Military Theory and the Military Profession". Based on a paper with the same title given by the author at the May 2004 meeting of the Society for Military History Bethesda, Maryland.
- Wylie, J.C. *Military Strategy: A General Theory of Power Control*. Annapolis, ML; Naval Institute Press, 1989.
- Yarger, Harry R. *Strategy and the National Security Professional: Strategic Thinking and Strategy Formulation in the 21st Century*. Westport, CT: Praeger Security International, 2008.
- Zinni, Anthony and Tony Koltz. *The Battle for Peace: A Frontline Vision of America's Power and Purpose*. New York, NY: Palgrave MacMillan, 2006.